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An improved version of the AQDM model was validated and then used to predict annual regional air quality levels for each year. The results indicated that annual primary SO_2 and TSP standards could be exceeded in the South Bronx by 2000. TSP levels throughout much of northeastern New Jersey and New York City exceed the secondary TSP annual guidelines.

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by

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An air quality maintenance analysis of SO_2 and TSP concentration was conducted for the New Jersey - New York and mid-Hudson AQMA's. The year 1975 was used as the base and projections were made to 1980, 1985, and 2000. An emissions inventory created under a previous contract was reviewed and updated using best available data. Improvements were made in the point source inventory, county level area source inventories, and subcounty allocation procedures.

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SECTION 1

INTRODUCTION

National primary and secondary Ambient Air Quality Standards (NAAQS) for sulfur oxides (SO_2) and total suspended particulates (TSP) were promulgated by the U.S. Environmental Protection Agency (EPA) on April 30, 1971. The primary standards are intended to protect the public health, while secondary standards are intended to protect the public welfare from any known or anticipated adverse effects. The States of New Jersey and New York have adopted air quality standards which are at least as stringent as the NAAQS. The target date for attainment of the national primary standards is now 1982 with all states required to submit a State Implementation Plan (SIP) to achieve this goal.

On May 31, 1972, the Administrator of EPA published his initial approvals and disapprovals of state implementation plans submitted pursuant to Section 110 of the Clean Air Act as amended in 1970. Challenges to these approvals included contention that approved plans were inadequate to insure maintenance of the air quality standards (Natural Resource Defense Council versus EPA, 475 F 2nd 968, January 31, 1973). A subsequent measure, taken by the Administrator on June 18, 1973, involved promulgation of regulations requiring states to conduct a comprehensive growth analysis of those areas which have the potential of exceeding any national ambient air quality standards over the next 10 years.

Key elements in the development of an air quality maintenance plan are emission inventories for each analysis year since these provide a practical basis for designing limitation, reduction and redistribution plans. The Tri-State Regional Planning Commission (TSRPC), located in New York City, developed a gridded emissions inventory for the 22-county area encompassing the New York - New Jersey and the mid-Hudson AQMA's for the base year (1974) and three projection years (1980, 1985, and 2000). This work was performed under EPA Contract No. 68-02-2096.

GCA was retained by EPA to verify the data developed by Tri-State; to update and improve the inventories using current data where necessary; and to apply these data in a regional modeling analysis to determine the extent to which air quality will be maintained.

This effort was carried out first by contacting each county planning organization in order to compare Tri-State grid level data with planning agency expertise and land use projections. A number of improvements, including separation of Tri-State's "nonresidential" land use category into the components "commercial/institutional" and "industrial", were made. This work is described in Section 2. A detailed review of the TSRPC methodology for calculation of county activity and subcounty allocation and projection was also made. From this review, improvements in some assumptions were made and a new inventory generated. This new inventory benefitted from a significant amount of new data including a recently produced inventory of New York City spaceheating provided by New York City DAR; an improved New York State point source inventory; and a 1975 New York State Fuel Balance. Creation of this inventory is described in Section 3.

The eastern half of Ulster County, New York is included in the mid-Hudson AQMA but not in the TSRPC study area. An emissions inventory was created for this area using State-calculated county fuel use and a gridded land use file. Section 4 presents this effort.

The inventory was then validated using the AQDM model and 1975 monitor data for SO_2 and TSP. The model validated quite well in New York City for SO_2; other areas and pollutants were not as successful although statistically significant correlation coefficients were derived. The calibrated model was then used to predict air pollutant levels throughout the study area for each of the study years. The results indicated that the only area where maintenance of annual SO_2 standards could be a problem would be in the South Bronx. Many areas of the region, particularly New York City and northeastern New Jersey, were predicted to exceed the secondary standard guideline for TSP. Certain limited areas were predicted to exceed the primary TSP standard. The validation and regional analyses are described in Sections 5 and 6, respectively.

Review of the modeling results for TSP coupled with state-of-the-art knowledge of particulate sources and impact mechanisms suggests that this analysis is not adequate for development of TSP control strategies. Current thought indicates that source impacts should be calculated through the use of microinventories. It is recommended that this technique be applied at nonattainment monitors in the AQMA.

Throughout this report, the work of TSRPC is referenced. In general, when Tri-State methodologies and/or data were accepted for the present study, the methodology has been described only by reference. The basic Tri-State document for referral is entitled "Methods Used To Estimate Air Pollutant Emissions - 1974, 1980, 1985, and 2000" dated June 1977 (EPA-902/4-77-006). Also, review of data representing Fairfield County, Connecticut was generally not a part of the present contract. These data were accepted as provided by Tri-State.

SECTION 2

REVIEW OF TRI-STATE RPC LAND USE DATA

A primary objective under this contract was to review and update all data used by the Tri-State Regional Planning Commission (TSRPC) in performance of Contract No. 68-02-2096. This section describes the techniques and conclusions of a review of the TSRPC basic land use and demographic files. Section 3 of this report describes the conclusions concerning the application of these and other data to creation of an emissions inventory.

DATA BASE

The TSRPC data were available for each square kilometer in the 21 counties of the 22-county study area (Ulster County, New York being the exception). The information included, for the years 1974, 1980, 1985, and 2000, grid coordinates, population, employment, and dwelling units plus land area and floor space devoted to residential, nonresidential and other land use. The goals of this review included:

- Verification of trends by subcounty area;
- Verification of county totals;
- Separation of Commercial and Industrial Land Use; and
- Review of development trends and projection assumptions for undeveloped land.

The review and correction of the Tri-State data base were accomplished through a series of detailed comparisons between the Tri-State data and information from county and regional planning boards. Each county planning board was visited by a GCA staff planner. This provided an opportunity for the county staff planners to review in detail Tri-State data and provide an in-depth analysis of present conditions and future trends on county and subcounty levels. In addition to presenting the county planners with specific figures for comparison, a series of computer maps were generated from Tri-State data to represent land use, both existing and future. The computer maps were as follows:

Map type	Year			
	1974	1980	1985	2000
Dominant Land Use and Development Intensity	X			
Nonresidential (NR) acreage	X			
Change in Dwelling Units and NR Land Use		X	X	X

These maps served as focal points in the discussions with staff planners and allowed them to crystalize county level thinking on probable growth areas for population, housing, and industry. There was considerable variation from county-to-county in the availability and sophistication of formal planning and future land use mapping but in all cases the computer maps were useful in determining major areas where discrepancies occurred. The following sections present the conclusions of this review.

GENERAL CONCLUSIONS

Subcounty Allocations

The basic Tri-State model for land use and growth allocation is a gravity model using accessibility and attractiveness of land as key parameters. This type of model is highly dependent on the regional transportation network and can be insensitive to local zoning for nonresidential land use in the vicinity of residential development. A large number of global assumptions are necessary concerning such factors as urban redevelopment, zoning changes, family size, and migration rates. Consequently, the Tri-State data base, while appropriate on the large regional scale is not always sensitive to local trends and conditions especially in areas of rapid economic, social and political changes.

Every 2 years the Tri-State data base is reviewed by regional and local planners and updated to reflect inasmuch as possible local, current trends. The procedure in which Tri-State and the counties work together towards a mutually acceptable set of plans and projections of data is called "cross acceptance". However, not all counties participate in this review and update process and, also, there is not full agreement between some counties and Tri-State planners. As a result there are some significant discrepancies between the Tri-State model and the counties.

Discussions with county planners proved extremely valuable due to their intimate familiarity with subcounty growth trends, particularly in reference to the population and housing trends up to 1985. Most projections to 2000 were considered highly speculative, especially given the recent downward trend in birth rates. Also in areas such as New York City there is significant inmigration of large numbers of people (e.g., illegal aliens) that are not reflected in official census and population projections.

The county planners examined the computer generated maps, overlaying these on county zoning maps and land use plans. This allowed for easy identification of any significant differences between the local and the regional (Tri-State) assumptions of growth. Generally, the fit was good, although in a few of the counties there were some important differences. These are discussed in Appendix A.

The Tri-State land use model combined commercial and industrial land use as nonresidential. Using county land use maps and the knowledge of county planners, this nonresidential category was split into commercial and industrial. This posed some difficulty due to variations in local definitions of commercial/industrial split was based on standard industrial codes (SIC's).

The total county acreages by land use type were not corrected using the above mapping process, but rather were included in the county level fuel allocations and assigned to grids using appropriate adjusted allocation factors as described in Section 3. Appendix A of this report presents a summary of comments made by county planners concerning the land use data and methods used in implementing this information in the emissions inventory.

County-Level Factors

Verification of county totals of population, housing, and employment was accomplished basically by comparing Tri-State figures with the 208 Water Quality Management when available. According to U.S. EPA, air quality planning figures should be consistent with water quality planning figures. Consequently, the basic policy was that the Tri-State figures were adopted whenever they were within 5 percent of the official 208 figures. In New York State 208 population projections were available in every county including the five nondesignated mid-Hudson counties of Rockland, Dutchess, Orange, Putnam, and Ulster, Westchester County, New York City, and the two Long Island Counties of Nassau and Suffolk. In New Jersey, Middlesex, was the only county with completed 208 figures. In the other counties, except Monmouth, which is discussed below, population and demographic projections were available from the Northeast New Jersey Water Quality Management Study that was prepared for Section 303(e) of PL 92-500. In keeping with the EPA policy of consistency between water quality and air quality data base figures, Tri-State data was accepted unless it varied more than 5 percent from 303 data in which case the 303 figures were accepted. For Monmouth County the 208 study was not completed at the time the inventory was done. Pending the issuance of official state figures, the Tri-State figures were used.

The housing and employment projections did not have the advantage of a common comprehensive water quality study with which to compare the Tri-State figures. However, to overcome this limitation a methodology was adopted that utilized county data and water quality population estimates. When available county projections on family size or persons per dwelling unit were divided into the best population estimate and the result compared to Tri-State projections. In a few counties housing estimates were available. These are discussed in Appendix A.

A similar situation existed for the employment data. In fact there was less data available on employment than for any other data investigated. When there was no formal state or county employment projection with which to compare Tri-State data, the county planner or economist was consulted to obtain his judgment as to the probable accuracy of the Tri-State figures. Employment is highly variable even more so than population and housing, and, consequently, the long range estimates must be viewed with caution. In New York City, for example, the planners were extremely reluctant to comment on Tri-State data given the sizable economic, political, and social variables affecting the employment situation.

Table 2-1 presents a summary of the recommendations and data used to create the emissions inventories. As will be described in Section 4, Ulster County is not within the Tri-State planning area. This required the development of an original emissions inventory.

TABLE 2-1. INITIAL RECOMMENDATIONS: POPULATION, HOUSING, EMPLOYMENT, LAND USE - NEW YORK, NEW JERSEY AND MID-HUDSON AREA EMISSIONS INVENTORY*

County	Population					Housing	Employment	Land use				
	Recommendation	Projections				Recommendation	Recommendation	Recommendation	1974	1980	1985	2000
		1974	1980	1985	2000							
New Jersey												
Bergen	Accept Tri-State	914,088	941,066	996,338	1,095,176	Accept Tri-State	Adopt County estimates	Accept Tri-State with minor modifications	Yes	Yes	Yes	Yes
Essex	Accept '303' estimates	939,948	960,000	972,500	1,010,000	Adopt higher GCA estimates	Adopt higher '303' estimates	Use Tri-State Distribution with higher figures	Yes	No	No	No
Hudson	Adopt '303' estimates	616,511	615,000	622,500	630,000	Adopt county estimates	Adopt county estimates	Accept Tri-State with minor modifications	Yes	Yes	Yes	Yes
Middlesex	Adopt new '208' single figure estimates	621,364	672,213	727,501	817,465	Adopt '208' based GCA estimates	Accept Tri-State	Accept Tri-State with modifications of southern areas	Yes	No	No	No
Monmouth	Accept Tri-State provisionally	476,934	541,161	589,000	696,000	Accept Tri-State provisionally	Accept Tri-State	Accept Tri-State except 1980 distribution	Yes	No	Yes	Yes
Morris	Accept Tri-State	406,540	441,732	484,311	551,954	Accept Tri-State	Accept Tri-State	Accept Tri-State with modifications	Yes	No	No	No
Passaic	Adopt New Jersey Series II	472,760	485,245	496,840	537,625	Accept Tri-State	Accept Tri-State	Accept Tri-State	Yes	Yes	Yes	Yes
Somerset	Accept Tri-State	216,074	215,778	241,950	288,117	Accept Tri-State	Accept Tri-State	Accept Tri-State	Yes	Yes	Yes	Yes
Union	Accept Tri-State	560,409	539,410	536,370	541,718	Accept Tri-State	Accept Tri-State	Accept Tri-State	Yes	Yes	Yes	Yes
New York												
New York City:	Accept Tri-State					Accept Tri-State	Accept Tri-State	Accept Tri-State	Yes	Yes	Yes	Yes
Bronx	Accept Tri-State	1,294,581	1,327,012	1,326,206	1,333,976							
Brooklyn	Accept Tri-State	2,510,641	461,283	2,448,510	2,413,738							
Manhatten	Accept Tri-State	1,506,969	1,504,589	1,515,451	1,515,097							
Queens	Accept Tri-State	1,980,766	1,882,939	1,899,370	1,929,096							
Staten Island	Year 2000 estimates questionable	323,035	402,615	446,063	501,431							
Nassau	Adopt '208' estimates	1,455,947	1,467,789	1,475,694	1,492,000	Accept Tri-State	Accept Tri-State	Accept Tri-State	Yes	Yes	Yes	Yes
Suffolk	Accept Tri-State	1,283,401	1,405,938	1,578,732	1,747,657	Accept Tri-State	Accept Tri-State except 2000 estimates	Accept Tri-State	Yes	Yes	Yes	Yes
Rockland	Adopt '208' estimates	252,700	279,200	308,900	380,200	Adopt '208' based GCA estimates	Accept Tri-State	Accept Tri-tate, 1980 needs some modifications	Yes	No	Yes	Yes
Putnam	Adopt '208' estimates	68,765	79,200	92,000	130,200	Adopt '208' based GCA estimates	Accept Tri-State	Accept Tri-State	Yes	Yes	Yes	Yes
Westchester	Adopt '208' estimates	860,000	880,000	880,000	900,000	Adopt Westchester County estimates	Adopt Westchester County estimates	Accept Tri-State	Yes	Yes	Yes	Yes
Dutchess	Adopt '208'	233,100	247,900	268,800	328,400	Accept Tri-State	Accept Tri-State	Accept Tri-State	Yes	Yes	Yes	Yes
Orange	Adopt '208'	242,000	267,000	300,000	422,000	Adopt county estimates	Accept Tri-State	Accept Tri-State	Yes	Yes	Yes	Yes
Ulster	Adopt '208'	156,400	171,100	185,900	222,600	LUMR data		LUMR data	Yes	-	-	-

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*See Appendix A for further discussion.

SECTION 3

EMISSIONS INVENTORY REVIEW AND DEVELOPMENT

Development of a base year emissions inventory and projection of these emissions to 1980, 1985, and 2000 was accomplished using a significant amount of new data provided by the States which was not available at the time Tri-State developed their inventory. Review of the Tri-State methodology, however, indicated that portions of their data represented the best available information for the region and these were used in the inventories created as part of the present contract.

A major source of emissions in the region is stationary source combustion and correct allocation of fuel to the county level is extremely important. These data were developed directly from MIS,[1] state, and city records. County level mobile source and incineration emissions were developed using state records and Tri-State data, while allocations of all emissions to grid squares was achieved using the Tri-State grid data after modification and improvement through the present contract. This section of the report presents a summary of county level activity, followed by the conclusions of the review of Tri-State's data, and then by the methodology used in allocation to grids and projection to 1980, 1985, and 2000.

COUNTY LEVEL ACTIVITY

Stationary Source Fuel Combustion

Stationary source activity is primarily related to the fuel burned by residential, commercial/institutional, and industrial buildings to provide heat and hot water and by generating facilities to provide steam and electricity. Due to different levels of detail in the available data, separate methodologies were employed in New Jersey, New York City, and New York State. The basic methodology in each case was to develop county level estimates of total fuel use and then to separate the data into point source and area source fuel use. A point source cutoff of 25 ton/yr of emissions of either sulfur dioxide or particulates was used throughout the study area. A description of the methods used to review point sources is described later in this section.

New York State--

New York State county level fuel use was provided by the State via the 1975 New York State Fuel Balance.[2] These data were developed through a dealer survey and rectified using MIS State Fuel totals. These data were specified by the State as the totals to use in developing the inventory. Slight modifications were made, however, as is described below.

New York State point source data were provided by the State in NEDS format after conversion from New York's AIR-100 system. This conversion caused some problems due to basic incompatibilities between systems; many sources received an SCC code of "39999999" which designates an undefined process. This problem, however, typically did not affect fuel combustion sources. The point source inventory was summarized into categories of fuel type and use for subsequent development of the area source activity.

Using the 1975 New York State Fuel Balance and point source inventory, area source fuel use was calculated for the seven counties in New York which are not a part of New York City. Redistribution of fuel among the various categories was required because many fuel use classes were "overdrawn" when point source fuel was subtracted from "total" fuel use. It was discovered that fuel use for West Point Military Academy was not included in the fuel balance figures since a federal facility does not necessarily purchase fuel through normal channels.

In rectifying fuel use totals, a procedure was developed which attempted to minimize modifying "known" totals. The steps performed in redistributing fuel were as follows:

- Residential point source fuel (primarily apartments) was separated from commercial point source totals;
- The 50/50 split of No. 4 and 5 fuel between distillate and residual oil was modified to better cover point source totals;
- Fuel was transferred from commercial use to industrial use and vice versa; and
- Fuel was transferred between counties.

The final correction, transfer among counties, was necessary in only one case: 1.3 million gal of industrial residual oil were transferred from West Chester to Rockland County in order to cover deficits in the latter county. Based on knowledge of the NEDS point source system and the description of techniques used in creating the fuel balance, these modifications appeared appropriate for rectifying fuel data. A potential problem with this procedure was identified by New York State DEC. As will be described more fully later in this section, overestimation of point source fuel use may have occurred in certain New York counties, resulting in underestimation of the area source component. Total fuel use by county, except for the transfer noted above, remained consistent with the New York State Fuel Balance.

Table 3-1 presents the results of this procedure and also compares the data with comparable data supplied by Tri-State under Contract No. 68-02-2096. The residual oil totals are within 5 percent, but the present distillate oil totals show a 34 percent reduction.

TABLE 3-1. AREA SOURCE FUEL USE TOTALS FOR NEW YORK STATE AND COMPARISON WITH 1974 TRI-STATE INVENTORY

County	Class	Distillate (10^3 gal)		Residual (10^3 gal)		Natural gas (10^6 ft^3)	
		GCA	Tri-State	GCA	Tri-State	GCA	Tri-State
Dutchess							
	Residential	56,863	85,690	0	0	1,330	1,230
	Comm/Inst	11,424	2,040	0	9,200	990	1,240
	Industrial	819	3,400	0	4,410	541	0
Nassau							
	Residential	285,395	355,260	2,403	26,120	14,232	13,190
	Comm/Inst	15,039	90,640	4,489	13,010	5,589	2,960
	Industrial	29,265	5,030	0	5,240	521	60
Orange							
	Residential	41,713	70,770	0	0	4,235	4,150
	Comm/Inst	1,780	4,100	0	4,710	1,927	2,210
	Industrial	0	2,150	0	2,100	737	100
Putnam							
	Residential	18,840	28,290	0	310	0	0
	Comm/Inst	3,216	3,380	0	620	0	0
	Industrial	0	460	0	0	0	0
Rockland							
	Residential	6,063	14,610	0	1,430	9,998	9,800
	Comm/Inst	0	13,100	0	1,500	3,724	3,960
	Industrial	0	140	0	1,720	1,553	0
Suffolk							
	Residential	218,214	362,000	0	0	12,616	12,040
	Comm/Inst	9,348	61,150	24,704	8,630	0	2,230
	Industrial	10,330	3,760	0	2,100	243	10
Westchester							
	Residential	115,521	188,320	63,912	14,390	14,600	13,040
	Comm/Inst	49,675	42,640	10,620	17,100	4,219	6,490
	Industrial	9,683	3,090	4,679	3,590	0	0
Total		882,188	1,340,060	110,807	116,180	77,055	72,710

New York City--

The City of New York Department of Air Resources maintains a file of point and area source fuel use[3] for the five boroughs. These data were recommended by the New York State Department of Environmental Conservation for use under this contract. This file was accepted for use after a study of the Tri-State dwelling unit distribution within Manhattan performed by NYS DEC indicated major discrepancies from Census Bureau figures. This problem was attributed to Tri-State's grid rotation procedure. It was also learned that Tri-State used a constant distribution of dwelling units per building throughout the city. The NYC DAR inventory, which incorporates all boilers in the city, was thus determined to be the best available data.

New Jersey--

County fuel use totals for New Jersey were developed using the techniques specified in Volume 7 of the AQMA Guidelines.[4] Appendix B of this report represents a summary of the input data and results of the county fuel allocations. Note that not all data presented in that Appendix were utilized. Exceptions will be described below.

Residential fuel use was calculated using an improved Level 3 analysis. The equation presented in the AQMA Guidelines is based on pre-1974 single family dwelling fuel use; use of this factor will overestimate the residential component. To improve this methodology, a building size correction factor was developed using data provided in Volume 13 of the AQMA Guidelines.[5] In this analysis, residual oil was assumed to be used only in buildings with more than 19 dwelling units.

State commercial, and industrial fuel use was allocated to the county level based on employment in the respective sectors. Point source fuel use subtracted at the county level. It was necessary, however, to rectify the area source totals since some counties had negative area source fuel use. This was found to occur due to the existence of a very large point source in the county. To rectify totals, the fuel use and estimated employment of major point sources was subtracted at the state level and allocation performed using the remaining totals. This corresponds to a modified Level 2 analysis. Table 3-2 presents area source fuel use by stationary sources in the New Jersey counties.

All other area source data were developed using the Tri-State activity and allocation methodology.

POINT SOURCE REVIEW

Point source data for New Jersey and New York State were provided in NEDS format for the base year, 1975. The New York City inventory was provided in CDM format and no editing was required under the contract. The data were divided on a county basis and entered into a computer for editing. Software was developed to process the NEDS files, report discrepancies in parameters and convert to model (AQDM) format.

TABLE 3-2. NEW JERSEY AREA SOURCE FUEL USAGE

County	Type*	Distillate oil (10^3 gal)		Residual oil (10^3 gal)		Natural gas (10^6 ft^3)	
		Tri-State	GCA	Tri-State	GCA	Tri-State	GCA
Bergen	R	84,400	122,200	18,620	5,500	20,830	21,650
	C/I	170,060	63,300	8,200	41,650	7,200	7,440
	Ind.	3,410	13,840	13,990	15,500	202,630	5,520
Essex	R	65,100	116,030	34,050	15,050	13,610	12,580
	C/I	190,150	69,000	9,160	45,420	8,060	8,110
	Ind.	1,940	9,460	9,440	24,910	50	5,000
Hudson	R	36,560	63,420	28,060	7,060	6,530	8,170
	C/I	105,790	37,150	5,100	24,450	4,430	4,370
	Ind.	590	9,390	9,100	18,200	2,050	4,980
Middlesex	R	50,260	76,850	9,270	2,630	13,200	11,960
	C/I	108,470	33,920	5,230	22,320	4,540	3,990
	Ind.	14,400	1,350	18,450	10,450	48,530	4,380
Monmouth	R	40,320	61,550	6,770	2,010	11,420	10,580
	C/I	76,300	22,870	3,680	15,050	3,180	2,690
	Ind.	3,160	3,410	3,340	7,390	670	1,710
Morris	R	38,010	74,220	6,520	2,630	10,760	6,450
	C/I	61,600	31,680	2,970	24,140	2,610	4,310
	Ind.	580	3,230	5,180	9,160	280	2,970
Passaic	R	41,980	51,600	9,700	2,430	8,820	10,040
	C/I	83,020	28,440	4,000	18,720	3,460	3,340
	Ind.	1,370	3,460	21,670	26,440	28,420	4,260
Somerset	R	20,830	32,120	2,480	560	5,540	4,710
	C/I	34,820	11,340	1,680	7,460	1,480	1,330
	Ind.	660	3,920	22,600	14,480	1,690	1,790
Union	R	47,880	92,250	12,010	4,930	11,010	9,740
	C/I	125,870	39,670	6,070	26,100	5,280	4,660
	Ind.	650	4,850	41,780	5,220	4,960	1,810
Totals	R	425,340	690,240	127,480	42,800	101,720	95,880
	C/I	956,110	344,980	46,090	225,310	40,240	40,240
	Ind.	27,860	46,570	145,550	116,080	289,280	32,420
Grand Total		1,049,300	1,081,790	319,210	384,190	431,240	168,540

*R = Residential; C/I - Commercial/Institutional; Ind. - Industrial.

The computer program checked the following data:

- Stack height, stack diameter, exit gas velocity and exit gas temperature were flagged if not within predetermined range;
- Annual fuel usage was compared with boiler capacity;
- Emission rates were calculated for each external combustion boiler and compared with the reported emission rates; and
- The reported coordinates of the source were listed.

The coordinates of each source was compared with county boundaries to determine proper specification at that level. Location of major sources was also compared with the coordinates of the town listed in the NEDS identification field as a further check of correct location. All source and location discrepancies were reported to the appropriate agency personnel and corrections were incorporated into the AQDM files.

The computer program, in addition to checking parameters, totals fuel use by fuel type and use and separates sources into point sources (those with emissions greater than 25 tons) and small point sources (all others). The small point sources are separated at this stage and their emissions are later added to the area source grid in which the small point source is located. This technique allows the resolution provided in the point source inventory to be maintained as opposed to an alternative methodology of adding small point source fuel to area source fuel and spreading the total throughout the county based on the area source allocation procedure. This technique was not entirely successful in New York State, and particularly Nassau County, where over 1,000 small point sources could not be practically reviewed for errors in annual fuel use. It was known, however, that numerous errors occurred in coding these data during initial reporting to the State and the fuel use was often orders of magnitude too great. This problem is most likely the cause for area source fuel use in New York State (Table 3-1) to be so small. It was decided, however, to continue with adding the small point sources to their specified grid.

REVIEW OF TRI-STATE INVENTORY TECHNIQUES AND APPLICATION DESCRIPTION UNDER THE PRESENT CONTRACT

Since stationary source fuel use was developed from new data for this contract, review of the Tri-State techniques for development of these data generally was not made. Tables 3-1 and 3-2 present a comparison of area source fuel usages determined by Tri-State to those made under the present contract. The review of the Tri-State data primarily focused upon differences in the land use files and population estimates used for allocation and projection as was described in Section 2, upon estimates of county incineration and mobile source fuel use and subcounty allocation procedures, and upon the methods and assumptions used to allocate stationary source data, in particular residential fuel, to counties in New Jersey and to grids in all counties. This section describes this review and the assumptions made for the present study.

County Residential Fuel Use - New Jersey

County level residential fuel allocations were reviewed for the New Jersey counties since a fuel balance was not provided by the state. Tri-State utilized the results of a survey of the entire nine counties. This survey indicated the following distribution of fuels by building size.

	Fuel type		
DU/Bldg	Oil	Gas	Other
1	0.355	0.619	0.026
2-4	0.608	0.379	0.013
5-19	0.576	0.308	0.116
20+	0.941	0.0	0.059

In addition, all buildings containing five or more dwelling units and which use oil were assumed to use residual oil. This distribution was assumed to hold in all of the New Jersey counties.

Comparison of this distribution with the 1970 Census data indicates that only in Bergen County is the fit acceptable. Natural gas usage is overpredicted in the urban counties and underpredicted in the suburbs. In addition, the assumption that all buildings with more than four units burn residual oil is apparently unreasonable based on boiler size requirements.

It was recommended that the county level distribution of fuel use specified in the 1970 Census data, modified to reflect conversions from coal, be used in place of the Tri-State technique. This allowed for a better distribution of fuel at the county level. In addition, residual oil use should be assumed only for buildings with more than 19 units. This latter assumption was supported by survey data taken in New York City and was discussed with and accepted by each of the regulatory agencies.

Residential Allocations to Grids

Tri-State's county level distribution of dwelling units per building, however, was acceptable as was information for selected MCD's throughout the study area. In performing the allocation of county fuels to grids, the following procedure was used. This technique employed the Tri-State grid level building size distribution in conjunction with Census Bureau data on distribution of fuel use in major urban areas. Major urban areas were identified within each county and the corresponding fuel use distribution was applied to these areas. The remaining areas of each county were assigned a "nonurban" distribution. This was computed by subtracting from the total housing units in the county using each fuel type, the respective units allocated as urban. The remainder was used to calculate the nonurban distribution for each county. Fuel efficiency factors were used based on the distribution of building size within each grid as recommended in Volume 13 of the AQMA Guideline.

Industrial and Commercial/Institutional Allocation

The Tri-State inventory of commercial/institutional and industrial fuels was developed and allocated utilizing a nonresidential category which covered all of these fuel uses. The present contract utilized the data developed through visits to county planners to create separate categories of land use for the allocation. Hence, fuel from each category was allocated to a grid based upon the portion of the total land use which was contained within that grid.

Mobile Source and Incineration Activity

Review of the Tri-State county totals and allocation and projection routines indicated that no further improvement of the aircraft, locomotive, and motor vehicle data was necessary. Incineration data were also accepted with the exception that New York City totals were normalized to emissions estimates provided by NYS DEC. The following emissions were used:

Pollutant	Year			
	1975	1980	1985	2000
Sulfur dioxide (ton/yr)	240	200	191	191
Particulates (ton/yr)	5,580	1,000	736	736

The distribution of emissions within grids was identical to that used by Tri-State.

Implicit to the light-duty vehicle emissions estimates are both conversion of the vehicle population from leaded to unleaded gasoline and the improvement in fuel economy required by federal regulations. Average fuel economy and emission rate by projection year was as follows:

Year	Fuel consumption (mpg)	Particulate emission rate (g/mi)
1975	13.5	0.54
1980	16.7	0.38
1985	20.0	0.28
2000	27.5	0.28

Fugitive Emissions

Tri-State computed fugitive dust emissions from apartment house construction using housing projections for buildings with five or more dwelling units. This methodology and the resulting figures were felt to be adequate for inclusion in the inventory and subsequent modeling effort. Tri-State's methodology involved identification of grids in which apartment house construction would be expected in each study year, the assumption that 20 dwelling units per acre would be the average density and that a project would last for 3 months. Emissions in this category will be somewhat overestimated because the study area has a much greater precipitation index than is implicit in published emission factors based on national averages.[6]

A review of several other sources of fugitive dust was made to determine whether adequate emissions estimates could be prepared. These included paved and unpaved roads, land tilling, and storage piles. It was felt that the probelms with estimation of emission rates and the suspendability of the material made any attempts at inventorying and modeling futile. These emissions can best be handled using the site-specific microinventory process.

PROJECTION METHODOLOGY

The target years for air quality maintenance planning under this contract were 1980, 1985, and 2000. Projections of fuel use and emissions was made using both the '208' population figures discussed in Section 2 and Tri-State's projection of growth for specific industries within the region.

Discussions were held with state and local agency personnel as to the best assumptions to make about future emissions. The States provided estimates of generating station emissions by year and New York State supplied their "special limitation" implementation schedule. This program allows certain sources to burn higher sulfur oil (these sources are listed in Table 3-3); based on data supplied by New York State and the Tri-State inventory, all incinerators were assumed either to be closed or in compliance by 1984. Fuel consumption by automobiles was estimated assuming full implementation of Federal fuel economy regulations.

TABLE 3-3. NEW YORK STATE SPECIAL LIMITATIONS ON FUEL SULFUR CONTENT

Facility	Fuel sulfur content (%)		
	1975	1980	1985
Port Jefferson	2.8	2.8	2.8
Northport	2.8	2.8	2.8
Glenwood	0.37	1.0	1.0
E.F. Barrett	0.37	2.2	2.2

Projection of point source emissions other than those from power plants was performed using the Tri-State growth factors by SIC code for industrial sources and by county growth factors for commercial/institutional. Tables 3-4 and 3-5 present, respectively, these growth factors. Projection of power plant emissions was supplied by the states. Major changes in these facilities included addition of Astoria No. 6 in Queens, and changes at the Arthurkill and Northport stations.

Area source emissions were projected using the recommended population totals (see Section 2) for the residential component and change in total floor space for commercial/institutional and for industrial. Allocation of emissions to grids was accomplished using the corrected Tri-State land use file described in Section 2.

County activity projection and subcounty allocation of mobile source, incineration and fugitive emissions were made using the Tri-State data.

EMISSION FACTORS

Emissions calculations were performed using the factors presented in the U.S. EPA's AP-42 document.[6] An exception to this was use of higher external combustion particulate emissions than those presented in AP-42 in order to account for the age of [illegible] oiler population in the region. This conclusion was reached after a se[illegible] f stack tests were studied by New York State DEC. The factors used were as follows:

Oil type	User class	Emission factor ($lb/10^3$ gal)
No. 6	Non-power plant	23
No. 6	Power plant	15 (or stack test)
No. 4	All	23
No. 2	Commercial/Institutional	15
No. 2	Residential	10

TABLE 3-4. INDUSTRIAL OUTPUT GROWTH FACTORS FOR TRI-STATE REGION

Industrial sectors	1974	1980	1985	2000
Chemical Mfg	1.000	1.297	1.519	2.513
Food/Agriculture	1.000	1.002	1.004	1.165
Primary Metals	1.000	0.840	0.840	0.862
Secondary Metals	1.000	0.840	0.840	0.862
Mineral Products	1.000	1.151	1.288	1.868
Petroleum	1.000	1.107	1.188	1.531
Wood Products	1.000	1.003	1.094	1.493
Total Manufacturing	1.000	1.113	1.224	1.704
Metal Fabrication	1.000	1.100	1.205	1.663
Leather	1.000	1.151	1.288	1.868
Textile	1.000	1.020	1.180	1.550
Inprocess Fuel	1.000	1.113	1.224	1.704
Other	1.000	1.151	1.288	1.868

TABLE 3-5. COMMERCIAL/INSTITUTIONAL POINT SOURCE GROWTH FACTORS

County	Growth factors			
	1974	1980	1985	2000
Dutchess	1.000	1.068	1.126	1.330
Nassau	1.000	0.989	0.999	1.092
Orange	1.000	1.148	1.271	1.618
Putnam	1.000	1.007	1.050	1.302
Rockland	1.000	1.057	1.105	1.272
Suffolk	1.000	1.079	1.147	1.286
Westchester	1.000	0.999	1.037	1.162
Bronx	1.000	0.982	1.019	1.166
Kings	1.000	0.984	0.979	1.036
New York	1.000	1.046	1.092	1.109
Queens	1.000	0.998	1.003	1.056
Richmond	1.000	1.213	1.390	1.836
Bergen	1.000	1.038	1.104	1.301
Essex	1.000	1.002	1.005	1.095
Hudson	1.000	0.993	1.040	1.247
Middlesex	1.000	1.096	1.205	1.505
Monmouth	1.000	1.088	1.161	1.403
Morris	1.000	1.057	1.118	1.324
Passaic	1.000	0.996	1.014	1.143
Somerset	1.000	1.020	1.097	1.327
Union	1.000	0.997	0.995	1.024

SECTION 4

ULSTER COUNTY EMISSION INVENTORY

Ulster County is located in the Mid-Hudson Valley and is not included within Tri-State Regional Planning Commission's planning area. The eastern half of the county, however, is included in the Mid-Hudson Air Quality Maintenance Area (AQMA). Hence, it was necessary to generate base and projection year inventories for use in the regional modeling analysis. This section describes the development of this inventory.

DATA BASE

The data used to generate the base year emissions inventory were provided by the New York State Department of Environmental Conservation. Included were the 1975 point source fuel use and emissions inventory; the 1975 county total fuel use; and a file of land use by square kilometer grid (LUNR data).

The following table presents total 1975 stationary source fuel use in Ulster County:

	Fuel Type			
	Coal (10^1 tons)	Distillate Oil (10^4 gal)	Residual Oil* (10^4 gal)	Natural Gas (10^7 ft^3)
Residential	148	3855	281	68
Commercial/Institutional	79	1122	347	36
Industrial	0	20	2513	86
Total	227	4997	3141	190

*No. 4, 5, and 6

The LUNR data includes, for each square kilometer in the AQMA, a summary of 49 categories of land use as well as a key to the minor civil divisions containing the grid square. These data were summarized into a file of population, housing, employment, and transportation land use.

Population and housing estimates by grid square were computed using the following housing density:

Residential Land Use Type	Density (DU/Ha)
High Density	30
Medium Density	10
Low Density	5
Strip Development	1
Rural Hamlet	2

Occupancy was assumed to be 90.2 percent and family size 3.2 persons/DU as derived from U.S. Census Bureau figures. These computed values of population by grid were then normalized on a town-basis to 1970 population figures and projected to 1975 using county estimates. Commercial and Industrial employment was estimated using County Business Pattern data and allocated to grids based on the respective LUNR land classifications.

The 1975 Ulster County NEDS point source inventory was summarized by fuel and user type so that an area source inventory could be created. Sources emitting greater than 25 tons/year of particulate were included in this inventory; smaller point sources were separated and later added to the area source grid within which the source was located.

COUNTY AREA SOURCE ACTIVITY

County activity in categories other than stationary sources was estimated using the techniques specified in the EPA AQMA Guidelines.[4] Highway mobile source activity was allocated from State MIS[1] figures using county vehicle miles travelled (VMT) data while rail and off-highway use was allocated based on population. Civil aircraft operations were estimated using an assumption of 365 LTO's per airstrip per year. Solvent use was estimated at 8 pounds/capita-year and structure fires at 0.004/capita-year. Estimates of activity within the AQMA were made using a ratio of AQMA population-to-total population with the exception that commercial and industrial data were estimated by employment. Table 4-1 presents AQMA area source activity for 1975.

In creating the stationary source inventory, several adjustments were necessary. When the New York State Fuel Balance was performed, most of the distillate oil was allocated as commercial/institutional while most of the residual oil was used by industry. The NEDS point source inventory classification, however, indicated a different mix, resulting in point source fuel use being greater than total fuel use in some categories. To remedy this problem, area source fuel use in the "overdrawn" categories was set to zero and the remaining point source fuel subtracted from the corresponding fuel use total of the other use class.

TABLE 4-1. AREA SOURCE ACTIVITY - AQMA PORTION OF ULSTER COUNTY

	Stationary source fuel use			
	Coal (10^1 tons)	Distillate Oil (10^4 gal)	Residual Oil (10^4 gal)	Natural Gas (10^7 gas)
Residential	148	3,176	0	68
Commercial/Institutional	79	575	65	36
Industrial	0	0	1,427	84
		Mobile source fuel use		
		Gasoline (10^3 gal)	Diesel (10^3 gal)	
Light duty vehicle		64,513	-	
Heavy duty vehicle		3,832	3,053	
Railroad		-	70	
Off-highway		2,211	263	
Civil Aircraft Operations (LTO's)		39,710		
Solvents purchased (tons)		500		
Structure fires		500		

ALLOCATION TO GRIDS

Total county emissions associated with county activity were computed and allocated to one-kilometer grids based on appropriate land use factors. Review of census data on the distribution of fuel use type within the county indicated that most natural gas was used within Kingston. This propensity for use of different fuel types in the county was accounted for by computing a gas and a nongas-using population figure for each grid. Allocation was achieved using the following factors:

Activity	Allocation Factor
Residential Gas	Gas-using Population
Other Residential	Nongas-using Population
Commercial	Commercial Employment
Industrial	Industrial Employment
Railroad	Railroad Land Use
Airport	Airport Land Use
Highway	Highway and Residential Land Use
Off-highway	"Other" Land Use
Structure Fires	Population

Total county area source emissions allocated to grids are 3,476 tons/year of SO_2 and 6,871 tons/year of particulate.

PROJECTION METHODOLOGY

Projection of emissions to 1980, 1985, and 2000 was performed using '208' population figures and projections of commercial and industrial facilities using OBERS projections for the county. Growth in motor vehicle use was supplied by NYSDOT and was placed at 3.53 percent per year. Gasoline usage and the resulting emissions were calculated as described in Section 3. Point source growth factors were those used for the rest of the study area. (See Section 3.)

Subcounty allocation of residential emissions was made using MCD growth factors provided by NYSDEC. Dwelling units were projected on a grid-by-grid basis based on the MCD containing the grid. The results were then normalized to county totals. All other growth was assumed to be distributed based on present allocations.

SECTION 5

MODEL SELECTION, VALIDATION, AND CALIBRATION

Analysis of the impact of changes in total emissions on ambient air quality, including determination of maintenance of the National Ambient Air Quality Standards (NAAQS), is performed using air quality modeling techniques. The principal tool in this process is a multisource dispersion model which is capable of representing the impact of spatially-distributed sources with a wide range of emission characteristics at specific receptor locations.

The procedure employed in performing an air quality modeling analysis includes:

- Selection of a model;
- Collection of input data;
- Validation of the model;
- Calibration of the model; and
- Analysis of regional air quality.

This section decribes the performance of the first four of these tasks; Section 6 describes the regional modeling analysis.

MODEL SELECTION

The requirements of this program suggested a model which was capable of representing the complex urban terrain of Manhattan as well as the rural sections of the Hudson Valley. Also, a source contribution file was necessary to minimize the cost of evaluating future air quality.

The Air Quality Display Model (AQDM)[7] was selected as the basic model for performing the analysis. Substantial modifications were made to allow for representation of urban sites. The Brigg's plume rise equations were substituted for the earlier Holland equation; a pollutant half-life decay factor and exponential windspeed profile were added to represent these atmospheric phenomena; a source contribution file option was created; and the model was modified to use a user-selected morning mixing height and to allow prediction of concentration at elevated receptors. This modified version of AQDM, along with the modified meteorological files described below, was determined to be an acceptable model for modeling Metropolitan New York.

INPUT DATA

The principal inputs to a model such as AQDM are the emissions data, a meteorological summary representative of the averaging period and region of interest, and the location of prediction receptors. The emissions data used in the validation have been described previously and the location of each ambient monitor and the recorded values were supplied by regulatory personnel.

Development of a representative meteorological summary for use in the model required a review of current knowledge of the meteorology of pollutant dispersion and the local effects at the National Weather Service stations in the New York City area. The inputs to the AQDM include the joint frequency of windspeed, wind direction, and stability class (STAR data); afternoon and morning mixing height; and average temperature. A review of the regional meteorology suggested that the study area should be split, representing New Jersey and Staten Island using Newark data and remaining sections of New York City and State using La Guardia data. Further, it was determined that within the four boroughs of New York City (excluding Staten Island) an "enhanced" stability regime would be used. This stability classification is similar to that used by the Climatological Dispersion Model (CDM) often used to model urban areas. It represents the enhanced mixing characteristics caused by building-induced turbulence by shifting the computed stability for each hour by one class towards unstable. Class A hours (the most unstable) were unchanged. Table 5-1 presents the meteorological characteristics used in the modeling analysis. All data represented 1975 annual observations to be consistent with the emissions and air quality data.

The effective stack height for each individual grid was computed by averaging the mean effective stack height of each of the following emission categories,[8] weighted by its relative emission strength within the grid:

Source category	Mean effective stack height (m)
Residential	15
Commercial/Industrial	47
Industrial	58
Incineration	23
Roadway	4

An attempt was made to compute a separate average stack height for each pollutant within each grid. Preliminary modeling, however, indicated that this procedure provided no substantial improvement in the results. Hence, the weighted average effective stack height computed using source strength of both pollutants by category was used. Half-life factors used in the analysis were 3 hours for SO_2 and infinite for particulates.

TABLE 5-1. METEOROLOGICAL COMBINATIONS USED IN MODEL VALIDATION

Region	Met station	Mixing height		Ambient temperatures (^{o}F)	Stability classification
		Morning (m)	Afternoon (m)		
New Jersey and Staten Island	Newark	500	1,286	54	normal
New York City (excluding S.I.)	Laguardia	839	1,286	54	enhanced*
New York State	Laguardia	500	1,286	54	normal

*See text.

MODEL VALIDATION

Model validation involves comparison of model predictions with actual monitor data so that conclusions can be drawn as to the reliability of the model and the prospect for accurate representation of regional air quality.

To evaluate the validation results, a correlation coefficient "r" was computed between observed and predicted values. The correlation coefficient is a measure of the strength of a linear relationship between two variables, in this case the measured and predicted concentrations. It will have a value close to 0 for a line incapable of prediction and close to 1.0 for a line capable of perfect prediction. Table 5-2 presents these correlation coefficients for each region and pollutant. All values of "r" were statistically significant at the 95 percent level. These values may be interpreted quantitatively by stating that r^2 is equal to the percentage of the variance of the predicted concentrations that can be accounted for by a linear relationship with the measured concentrations. The remaining percentage is referred to as the error variance, due to factors such as:

TABLE 5-2. RESULTS OF MODEL CALIBRATION

Region	Correlation Coefficient	
	TSP	SO_2
New York City	0.62	0.89
New Jersey	0.63	0.69
New York State	0.45	0.37*

*See text for further detail.

- Accuracy of the atmospheric diffusion model;
- Accuracy of the emissions data;
- Accuracy in the meteorological data; and
- Potential bias in the monitoring data used for validation.

Tables 5-3 through 5-6 present the comparison of predicted and observed air quality concentrations at each monitor site. Model predictions have not been adjusted to reflect calibration in these tables.

MODEL CALIBRATION

The purpose of a calibration is to incorporate into the modeling study information concerning the relationship between measured and predicted concentrations illustrated by the model validation. Ideally, model predictions and actual measured data should be related by a line with a slope of unity and an intercept of zero. However, deficiencies in the emissions inventory (e.g., the exclusion of natural and fugitive sources of particulates) and inaccurate

TABLE 5-3. NEW JERSEY TSP MONITORS
TSP (μg/m^3)

	Observed	Calculated
Fair Lawn	43	23
Upper Saddle River	36	9
Fort Lee	42	46
Hackensack	54	30
East Orange	56	35
Irvington	49	31
Livingston Twp.	32	17
Orange	47	26
West Orange	47	21
Newark	53	45
Bayonne	64	37
Jersey City (579.9 4508.7)	81	53
Jersey City (576.5 4509.3)	71	46
Secaucus	59	40
Hoboken	61	62
Carteret	71	25
Perth Amboy	62	21
Sayreville	57	14
South Amboy	59	19
Woodbridge Twp.	51	21
Sewaren	57	23
S. Brunswick	49	7
Cheesequake	35	13
Metuchen	51	17
Middlesex	51	11
Asbury Park	50	7
Millstone Twp.	33	5
Red Bank	39	9
Brielle	34	6
Dover	36	7
Florham Park	33	11

(continued)

TABLE 5-3 (continued)

	Observed	Calculated
Paterson	39	20
Shillman	37	6
Linden	62	28
Roselle	66	25
Rahway	44	23
Union Twp.	43	31

TABLE 5-4. NEW JERSEY AND STATEN ISLAND SO_2 MONITORS SO_2 ($\mu g/m^3$)

	Observed	Calculated
Bayonne	47	44
Elizabeth (567.0 4499.0)	44	78
Newark	50	47
Asbury Park	26	6
Elizabeth (566.4 4501.0)	34	56
Hackensack	21	26
Jersey City	42	56
Morristown	24	14
Paterson	21	21
Perth Amboy	31	32
Somerville	24	8
Staten Isl. (578.1 4499.2)	59	47
Staten Isl. (564.1 4484.2)	40	27

TABLE 5-5. NEW YORK STATE SO_2 AND TSP MONITORS

	SO_2 ($\mu g/m^3$)		TSP ($\mu g/m^3$)	
	Observed	Calculated	Observed	Calculated
Glen Cove	24	15	55	16
Freeport	21	22	48	21
Garden City	21	23	44	24
Rockville Ctr.	24	24	53	25
Kings Pt.	16	22	41	27
Hempstead	21	27	54	29
Hempstead	18	19	55	20
Hempstead	31	20	60	21
Hempstead	18	23	49	25
Hempstead	24	22	60	24
N. Hempstead	16	18	46	20
N. Hempstead	21	19	44	24
Oyster Bay	16	17	49	28
Oyster Bay	18	11	42	12
Oyster Bay	16	16	49	17
Roslyn	21	16	–	–
Port Jefferson	–	–	40	8
Port Jefferson	–	–	49	7
Babylon	–	–	54	17
Babylon	29	16	–	–
Brookhaven	–	–	40	9
Brookhaven	–	–	40	7
East Hampton	8	1	–	–
Islip	13	11	–	–
Islip	–	–	42	12
Islip	13	–	–	–
Smithtown	–	–	48	13
Southampton	–	–	30	3
Peekskill	–	–	60	9
White Plains	31	12	50	14

(continued)

TABLE 5-5 (continued)

	SO_2 ($\mu g/m^3$)		TSP ($\mu g/m^3$)	
	Observed	Calculated	Observed	Calculated
White Plains	31	10	-	-
Mt. Vernon	42	29	54	32
New Rochelle	-	-	59	24
Ossining	-	-	46	11
Port Chester	31	11	42	13
Yonkers	-	-	60	29
Rye	-	-	59	13
Mamaroneck	35	13	50	16
N. Tarrytown	-	-	47	15
Greenburg	21	10	55	14
Mamaroneck	31	16	52	19
Mt. Plesant	21	9	42	11
Somers	21	4	34	7
W. Haverstraw	16	6	43	9
Nyack	18	8	-	-
Suffern	-	-	48	6
Clarkstown	8	5	44	10
Orangetown	-	-	46	12
Cold Springs	-	-	41	8
Brewster	-	-	41	7
Newburgh	-	-	65	8
Poughkeepsie	-	-	56	9
Rhinebeck	-	-	40	7
Fiskkill	-	-	41	8
La Grange	-	-	34	8
Kingston	-	-	56	14
New Paltz	-	-	48	6

TABLE 5-6. NEW YORK CITY SO_2 AND TSP MONITORS

	SO_2 ($\mu g/m^3$)		TSP ($\mu g/m^3$)	
	Observed	Calculated	Observed	Calculated
Bronx Hi	51	27	57	30
Morrisania	69	54	75	53
CCNY	72	52	70	44
Central Park	53	48	65	45
Gompers	75	58	76	52
Ft. Schuyler	37	16	48	19
Mabel Dean	75	52	71	46
Greenpoint	67	42	73	41
Jct. Blvd.	48	30	63	32
Queens College	51	23	50	30
PS 371	56	28	77	25
Brooklyn Lib	59	36	52	38
51 Astor Pl.	80	51	-	-
121st St. Lab	75	58	-	-
Sheepshead	53	20	62	23
PS 11	53	39	70	44
Van Buren	45	16	59	19
Grover Cleveland	53	33	64	37
Andrew Jackson	45	18	58	21
Roosevelt Island	59	44	-	-

spatial representation of area source emissions (these emissions are "smeared" over an area with a minimum size of 1 square kilometer) as well as unrepresentative meteorological and monitoring data all combine to create an imperfect model. Correction for these imperfections is performed by fitting the data with a least-squares line of best fit. This was performed separately for each pollutant and for the three regions noted in Table 5-1. Further review of these regional breakdowns suggested that Long Island should be separated from the Mid-Hudson Valley. The SO_2 validation results improved significantly after separation of the data; TSP, however, changed very little. Figures 5-1 through 5-6 present the calibration lines. The results of the SO_2 validation for the Mid-Hudson area are not presented as this has not been designated as a maintenance area.

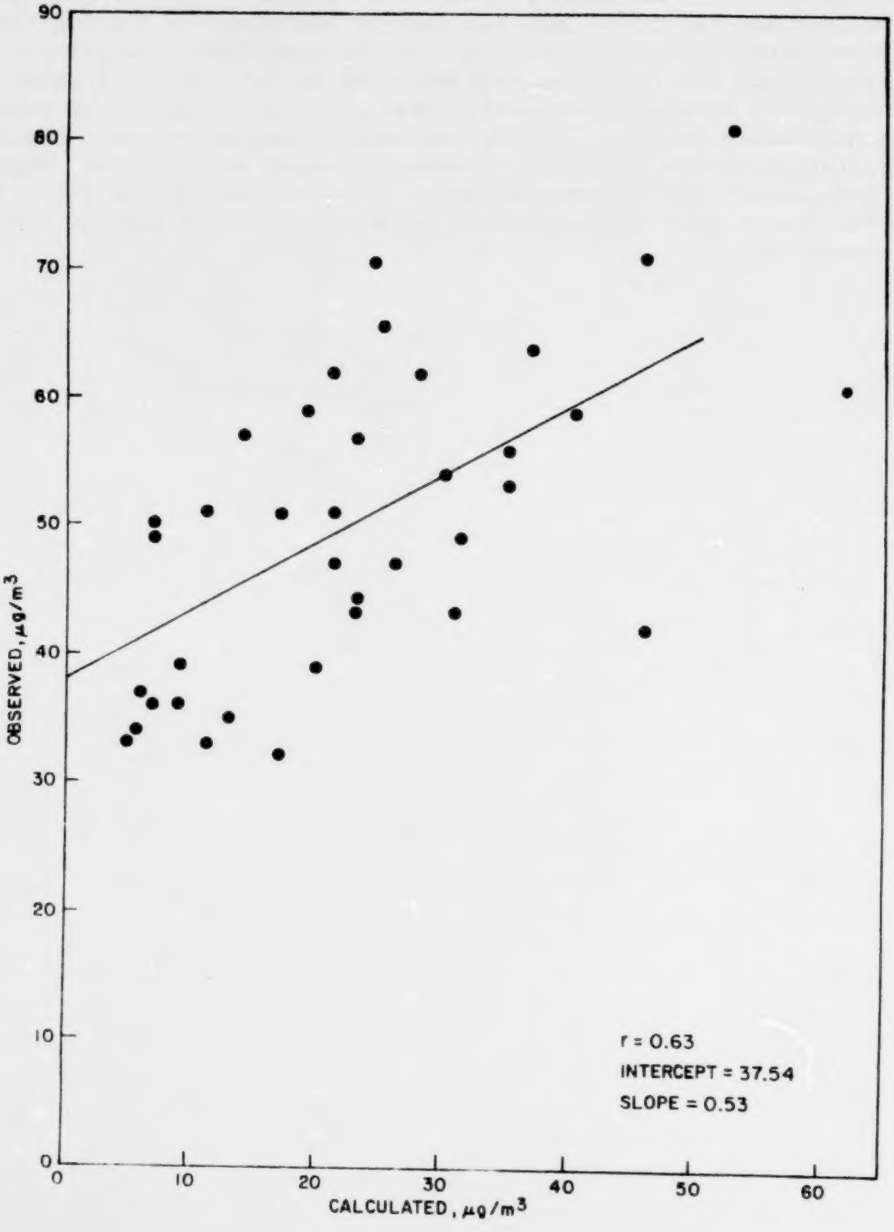

Figure 5-1. Validation of New Jersey TSP sites.

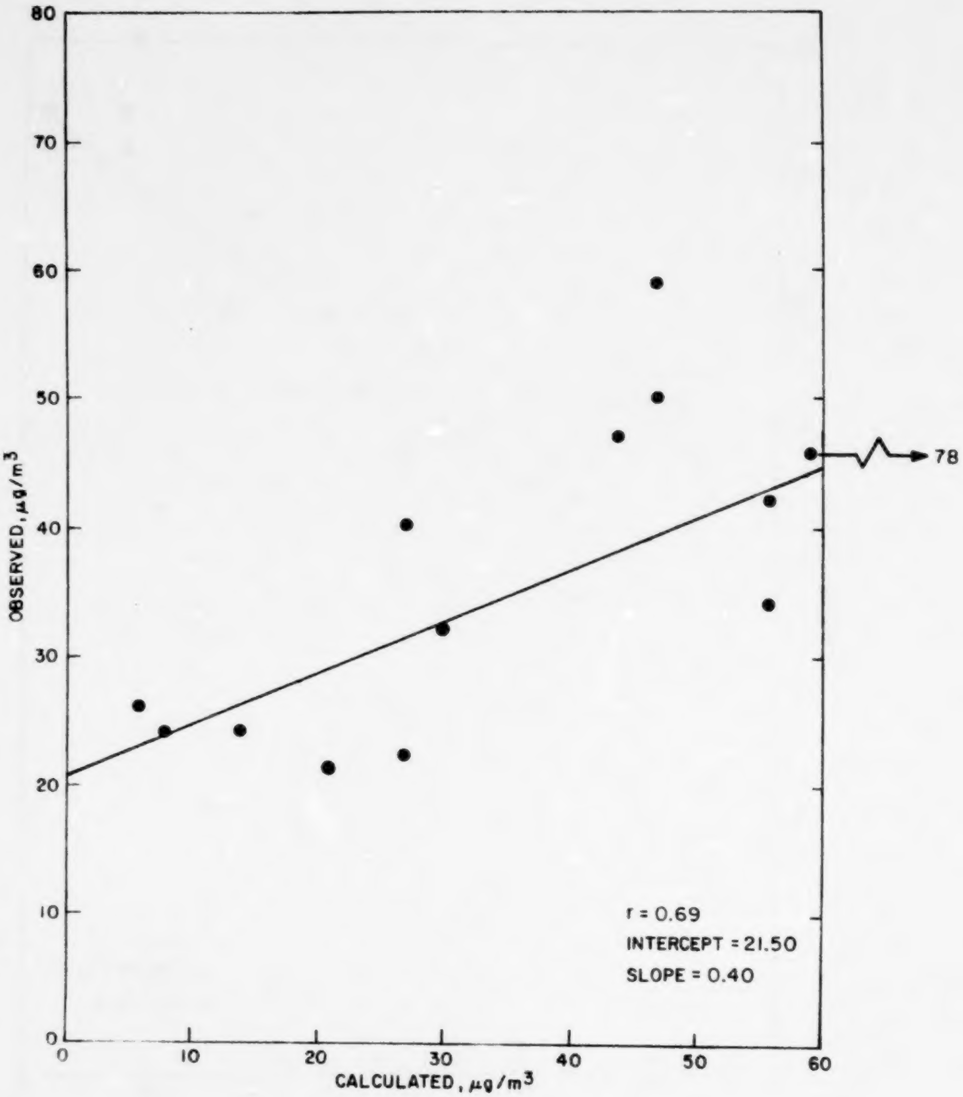

Figure 5-2. Validation of New Jersey and Staten Island SO_2 sites - 1975.

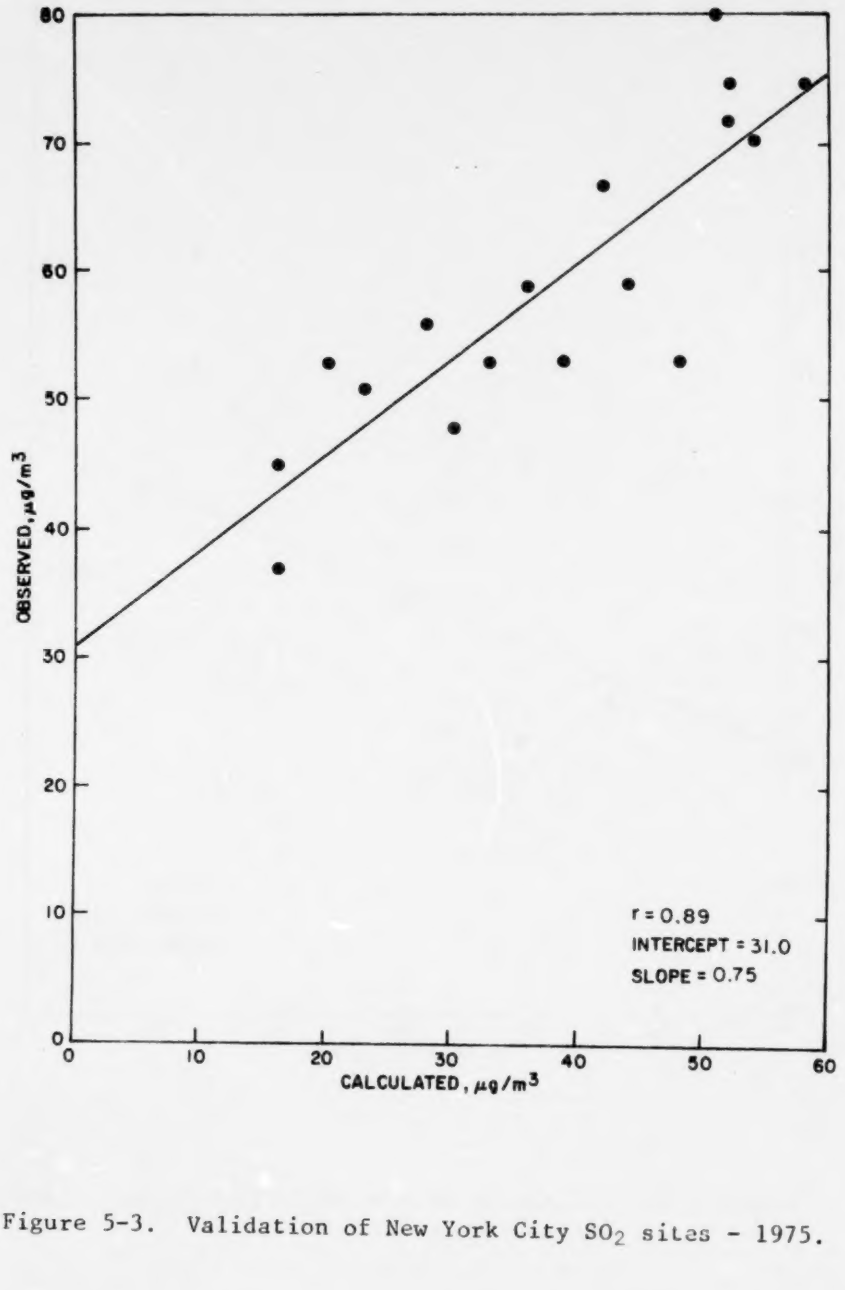

Figure 5-3. Validation of New York City SO_2 sites - 1975.

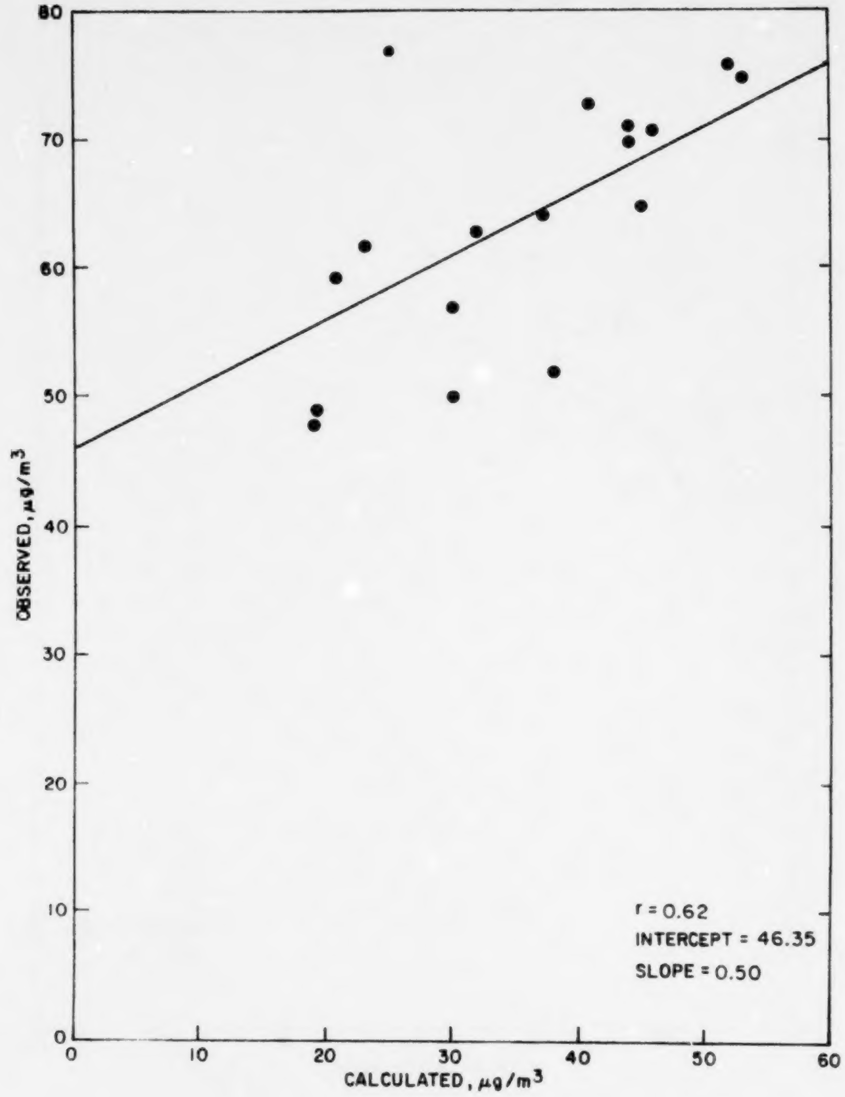

Figure 5-4. Validation of New York City TSP sites - 1975.

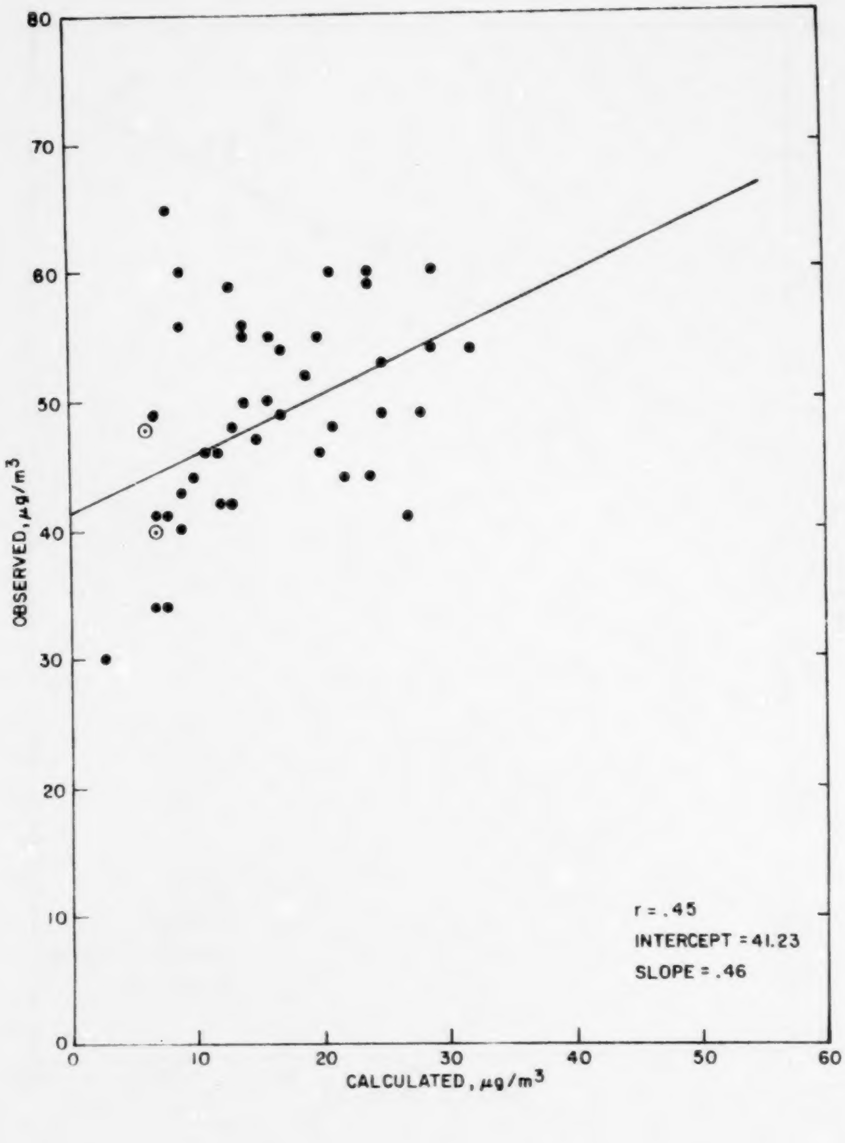

Figure 5-5. New York State TSP validation - 1975.

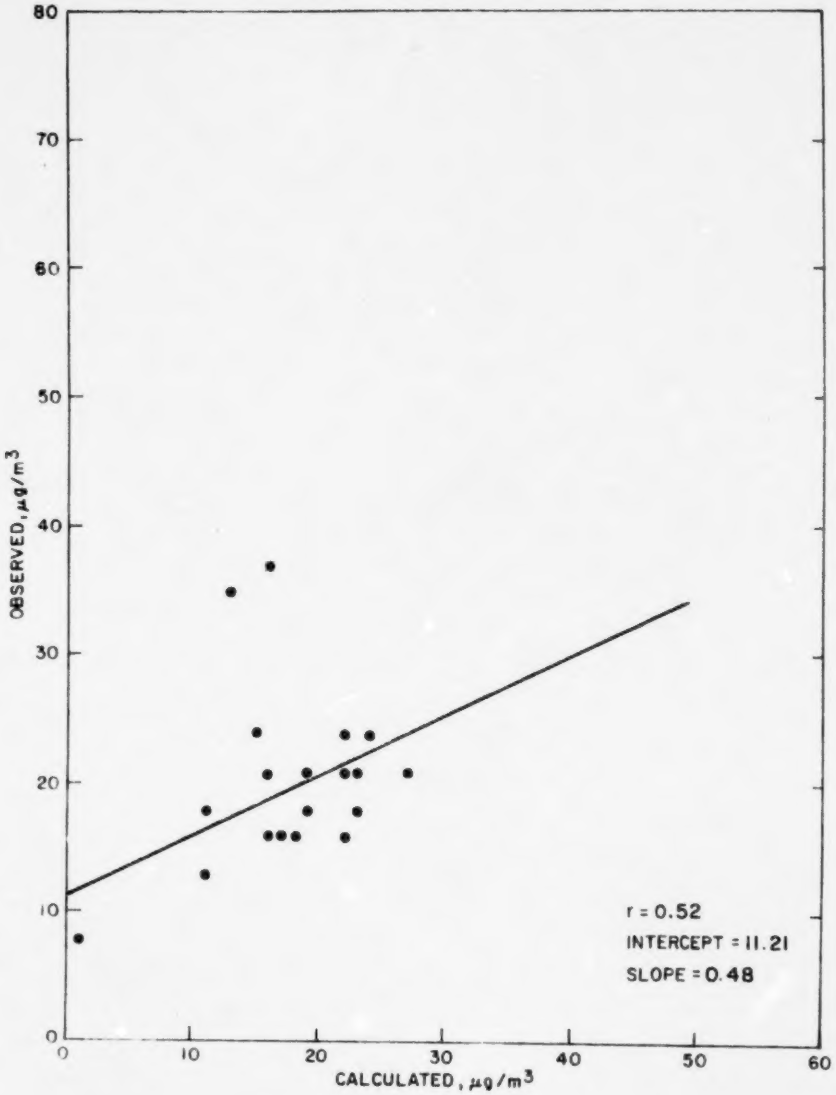

Figure 5-6. Long Island SO_2 validation - 1975.

SECTION 6

REGIONAL MODELING ANALYSIS

A regional analysis of base year (1975) and projected air quality was performed to determine whether NAAQS will be maintained. This task was achieved by using the projected emissions inventory, average regional meteorology, an array of receptor points located throughout the area and the calibrated model to predict annual SO_2 and TSP concentrations.

The generation of the projected emission inventories has been discussed in Section 3 of this report. Average meteorological data were implemented as was described in Table 5-1, however, the base period of record was the 5-year average, 1960 to 1964, rather than the validation year, 1975. The regional array of receptor locations was specified by the States. It was decided that only the monitor locations would be modeled in New York City.

The modeling analysis was performed by executing the AQDM model for the base period and creating a file of source contributions, that is, the relative impact of every source on every receptor. Projected air quality was then calculated by multiplying the projected emission rate by the source contribution and summing over each receptor. Implicit in the use of this technique is the assumption that plant operating characteristics other than emission rates do not change over time. Calibration for all years was applied by multiplying the concentration computed by the model by the slope and adding the intercept.

Figures 6-1 through 6-24 presents the results of the regional modeling analysis in the form of concentration isopleths. The figures are organized to present, for each pollutant and region, predictions of air quality for the four years. Since these are projections including the calibration curve, the values included in these figures represent actual air quality concentrations, within the accuracy of the model.

Review of these data indicate that SO_2 levels in New Jersey and Staten Island are not expected to exceed the 80 $\mu g/m^3$ standard through the year 2000. The secondary guideline for TSP (60 $\mu g/m^3$), is exceeded throughout Hudson County in 1974 and the predicted area of exceedance extends to include southern Bergen and eastern Essex and Passaic Counties by 2000. An isolated TSP "hot-spot" located in southern Passaic County resulted from location of a receptor immediately to the east of a major source.

New York City SO_2 levels are below the annual standard until 2000 when the Gompers site is predicted to equal 80 $\mu g/m^3$. TSP levels exceed the 60 $\mu g/m^3$ secondary guideline throughout most of the four boroughs; in 2000 the Gompers area is also predicted to exceed the primary standard for TSP.

The New York State results indicate that the SO_2 standard will be maintained through the year 2000; areas of southern Westchester County, however, are expected to be above the secondary TSP guideline in all 4 study years.

As a perspective on these base and projection year isopleth maps, several points must be considered. The use of a linear curve to calibrate the model can result in significant under- or overprediction at those points which were poorly represented in the initial validation. As an example, the standard error between observed and calibrated base year SO_2 predictions in New York City was 5.7 $\mu g/m^3$, implying this magnitude of "shift" between observation and prediction. The existence of a "background" in the calibration tends to moderate the impact of growth on air quality projections. The exitence of different calibration curves for each region also suggests differences in monitoring techniques or in the degree of representativeness of the meteorology and emissions inventory. Finally, the use of projections, consistent with "208" figures in the Bronx and Kings as recommended by NYS DEC would have resulted in slightly lower projected concentrations.

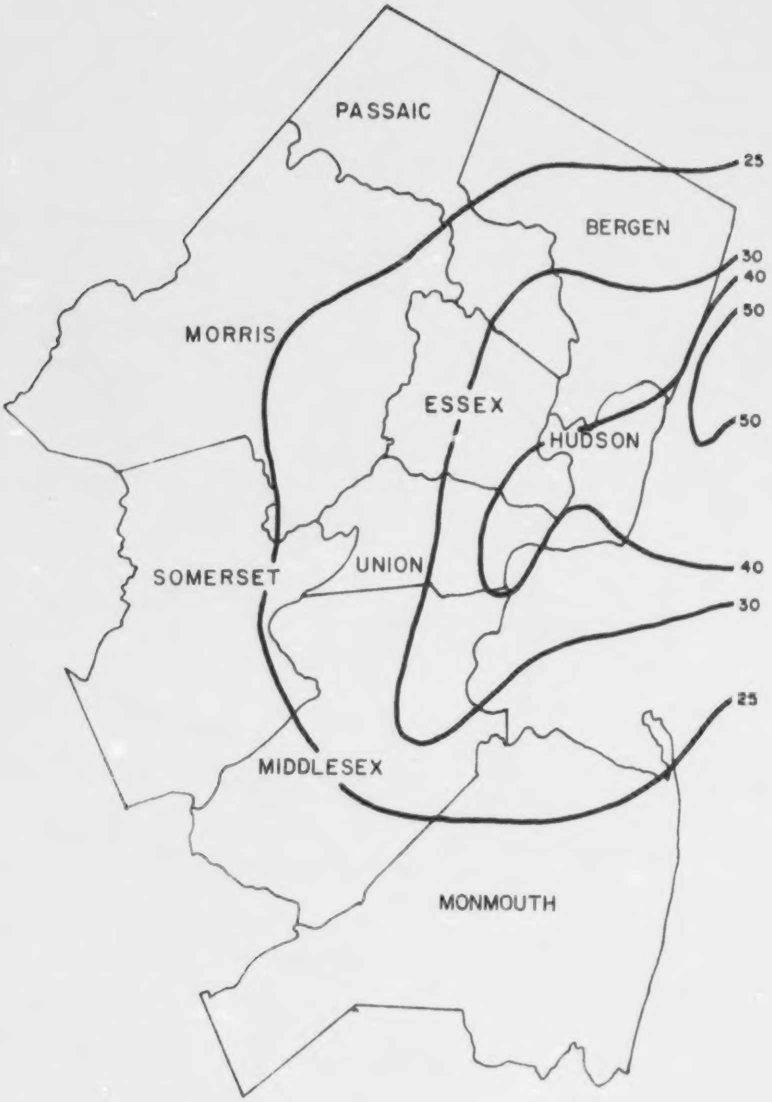

Figure 6-1. New Jersey Regional Modeling Analysis for SO_2 - 1974 ($\mu g/m^3$).

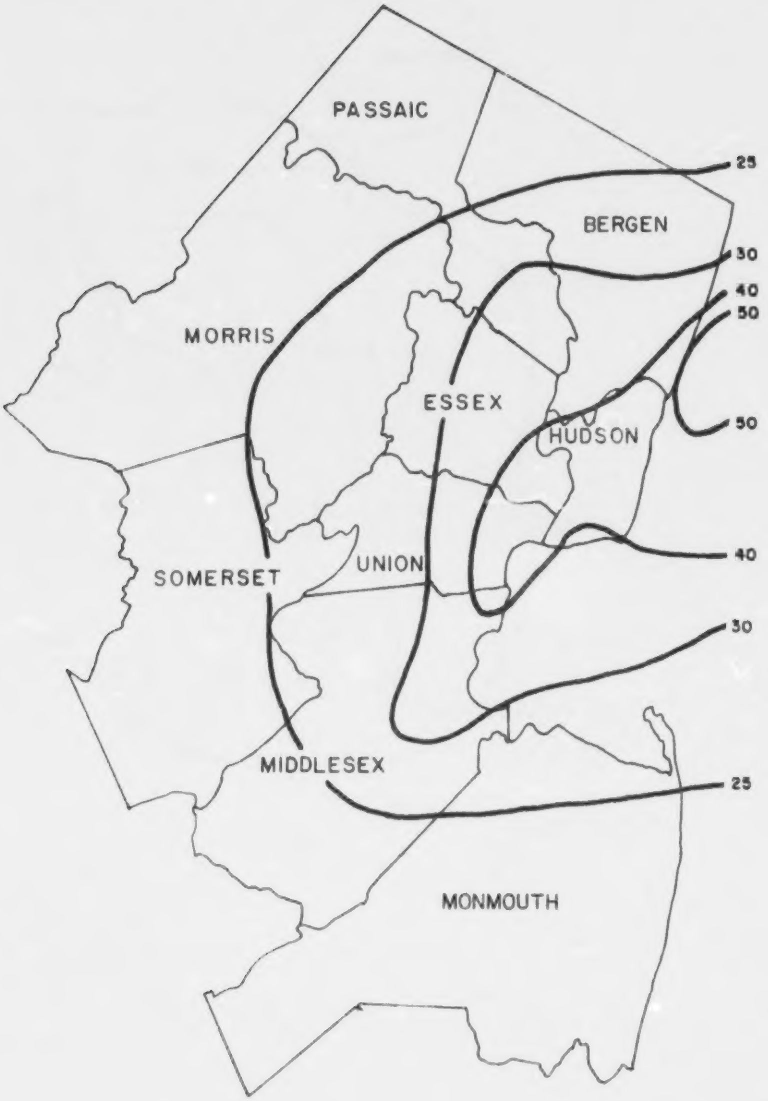

Figure 6-2. New Jersey Regional Modeling Analysis for SO_2 - 1980 ($\mu g/m^3$).

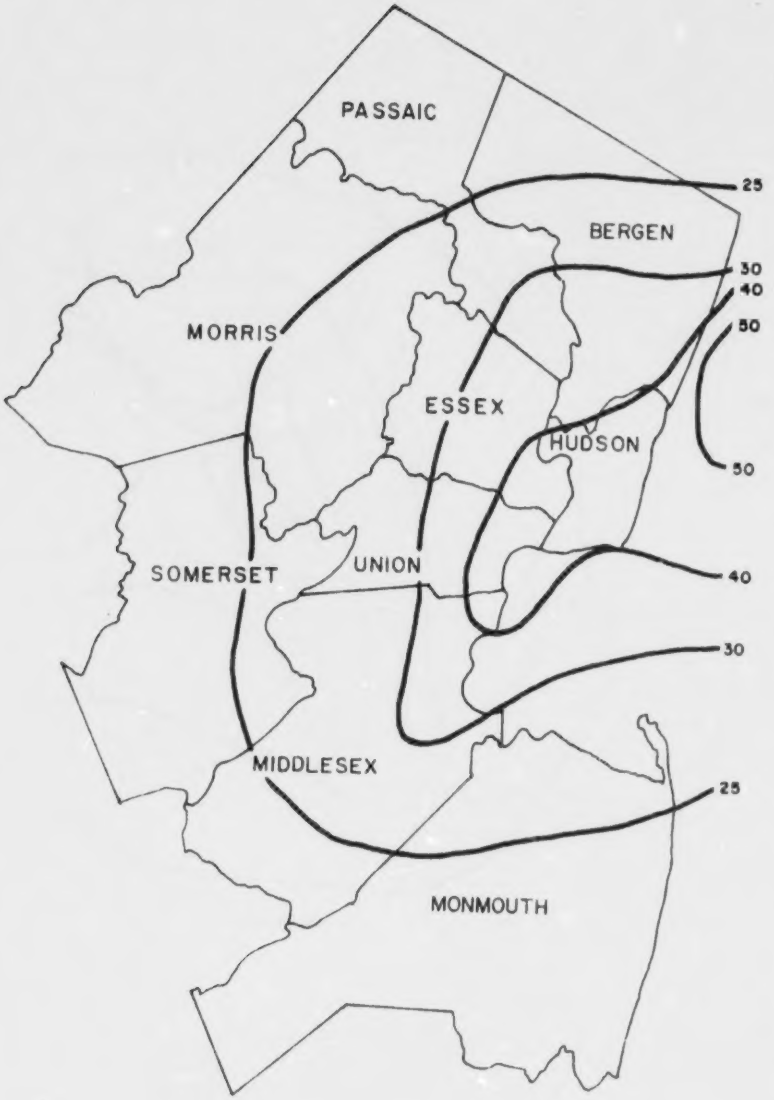

Figure 6-3. New Jersey Regional Modeling Analysis for SO_2 - 1985 ($\mu g/m^3$).

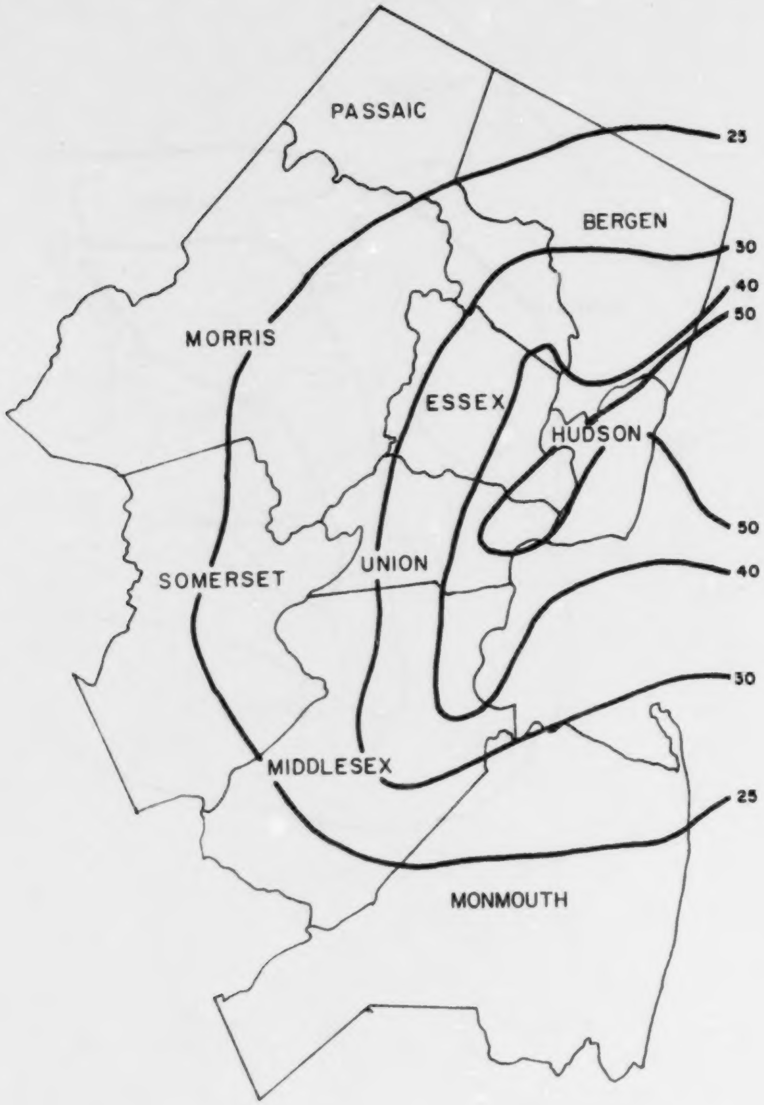

Figure 6-4. New Jersey Regional Modeling Analysis for SO_2 - 2000 ($\mu g/m^3$).

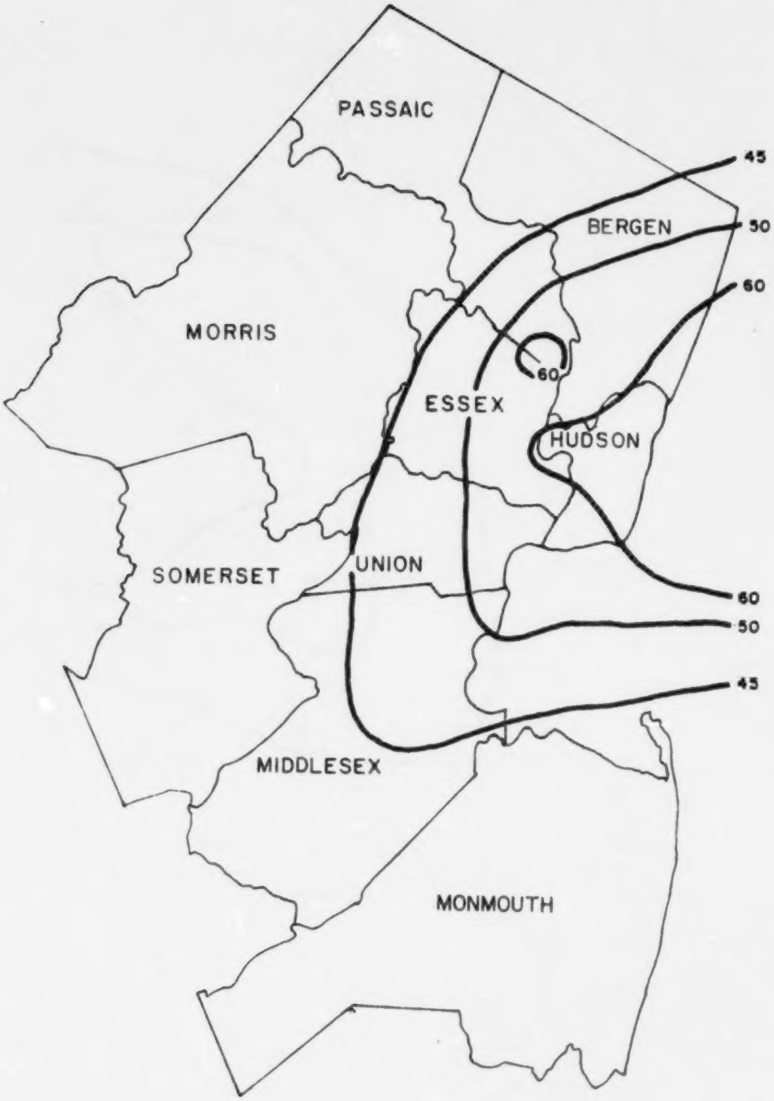

Figure 6-5. New Jersey Regional Modeling Analysis for TSP - 1974 ($\mu g/m^3$).

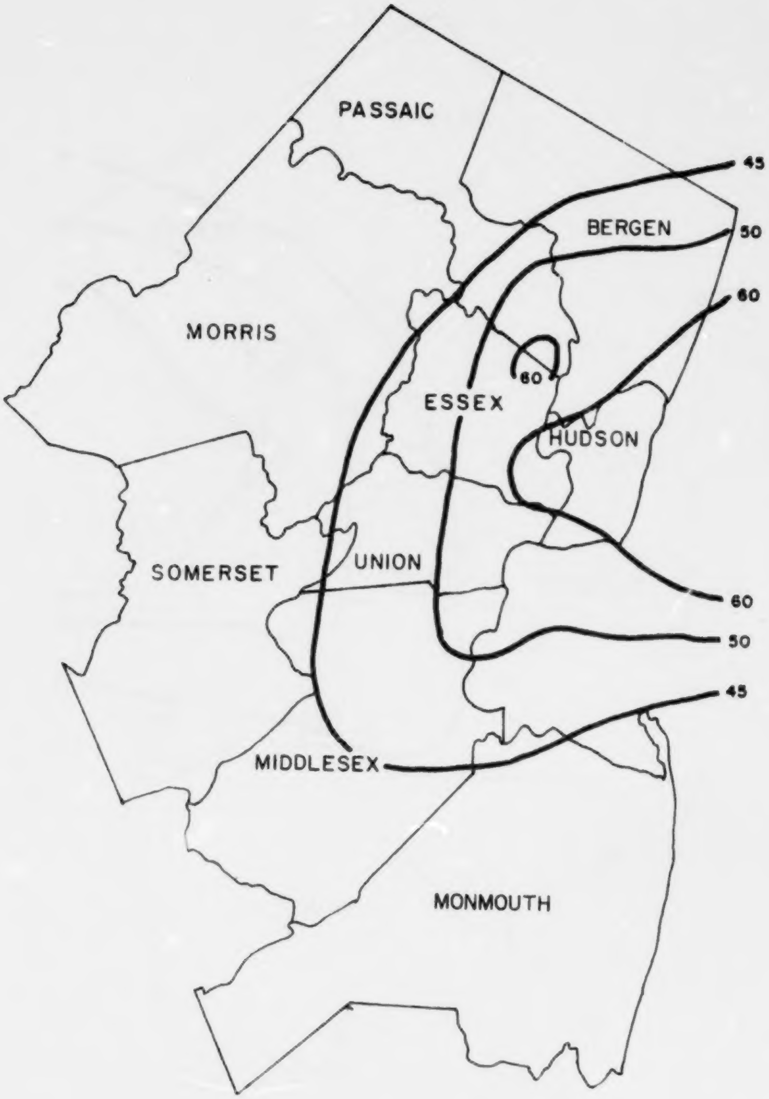

Figure 6-6. New Jersey Regional Modeling Analysis for TSP - 1980 ($\mu g/m^3$).

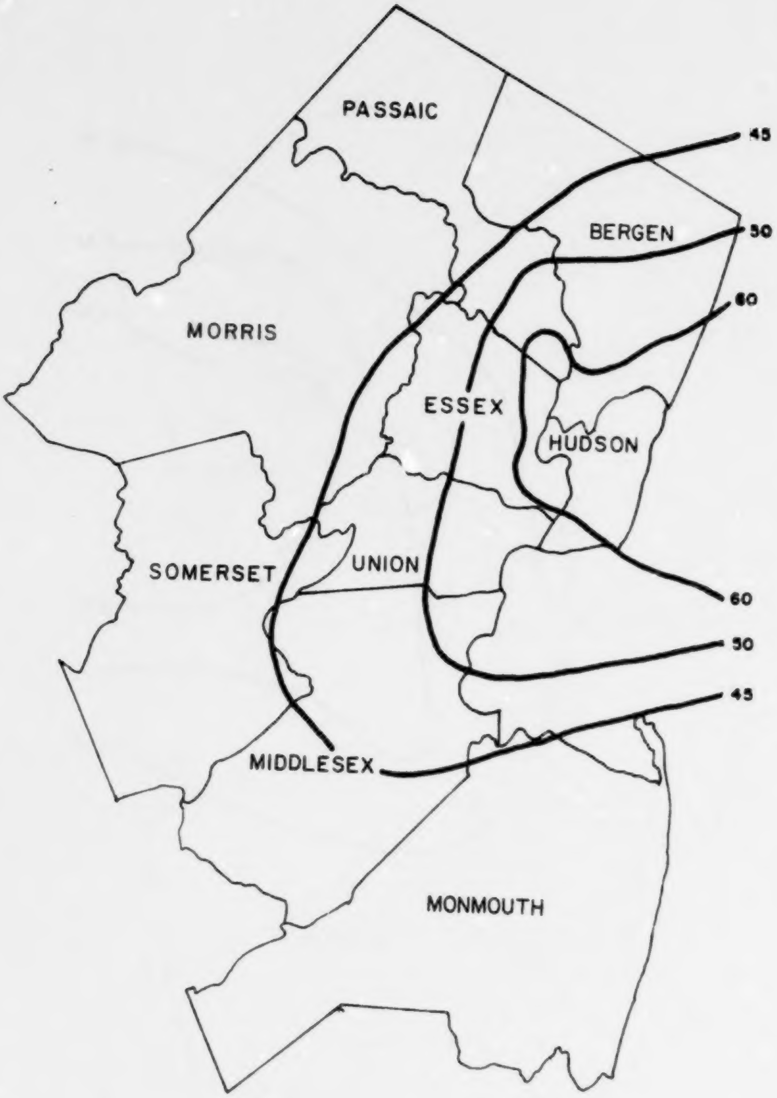

Figure 6-7. New Jersey Regional Modeling Analysis for TSP - 1985 ($\mu g/m^3$).

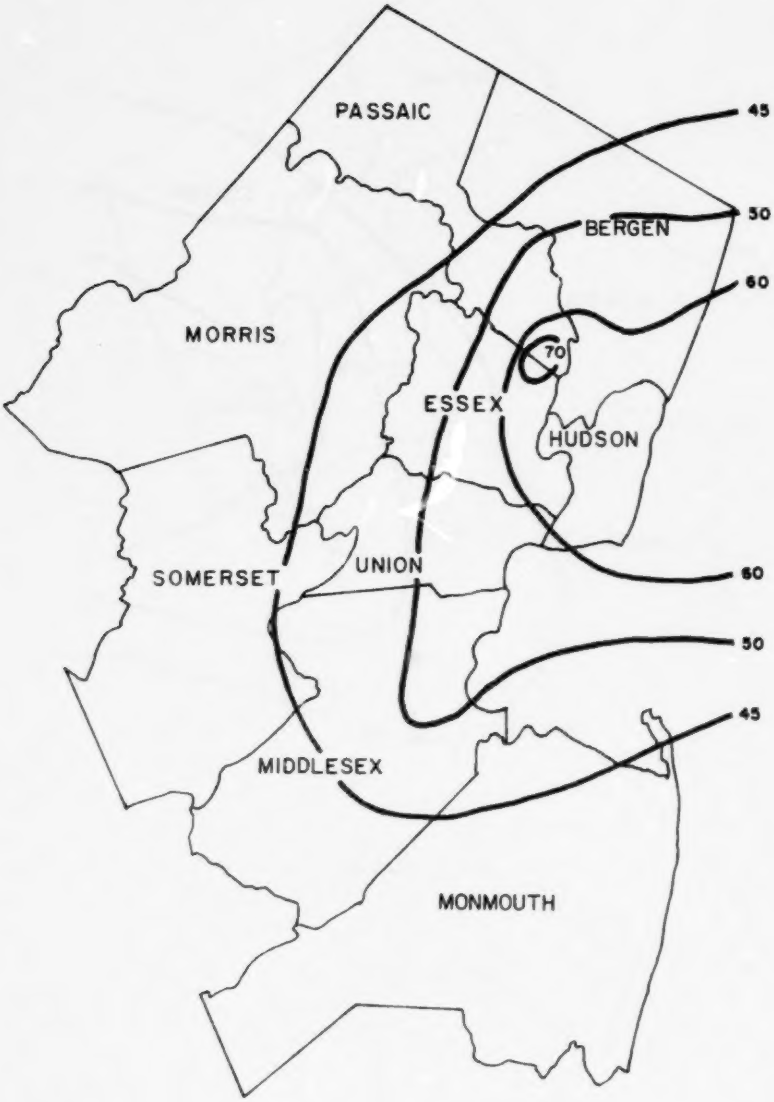

Figure 6-8. New Jersey Regional Modeling Analysis for TSP - 2000 ($\mu g/m^3$).

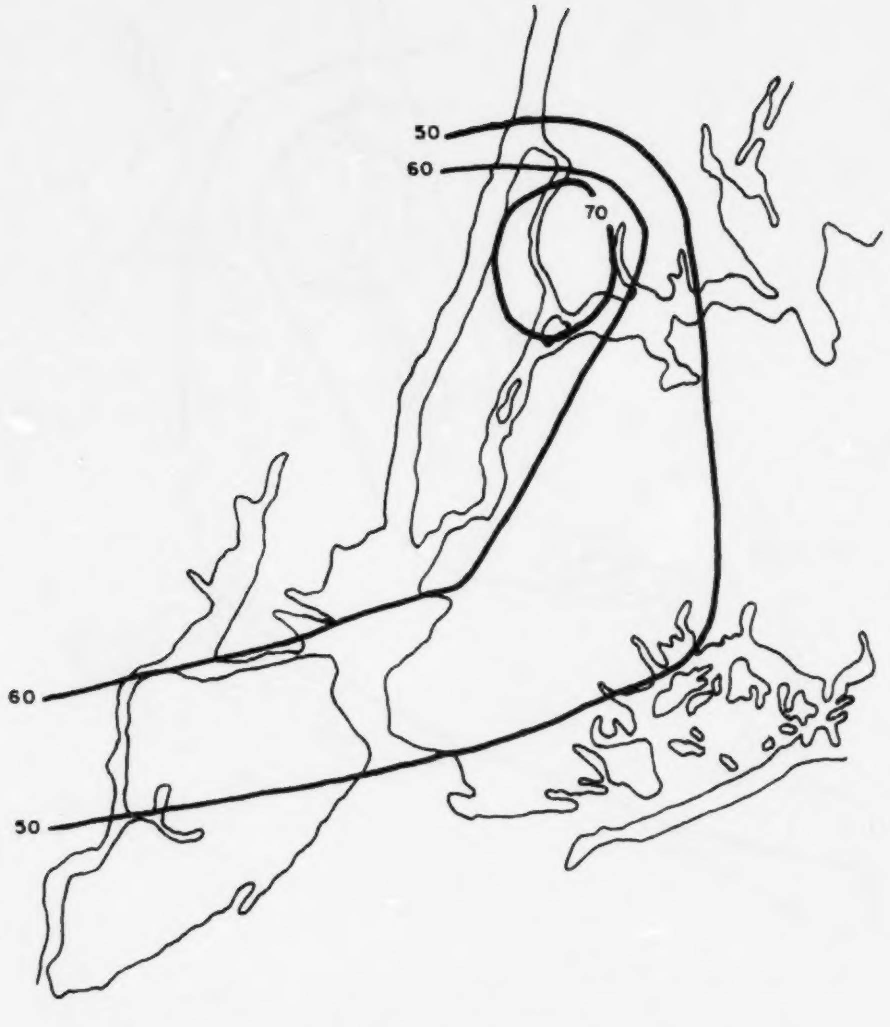

Figure 6-9. New York City Regional Modeling Analysis for SO_2 - 1974 ($\mu g/m^3$).

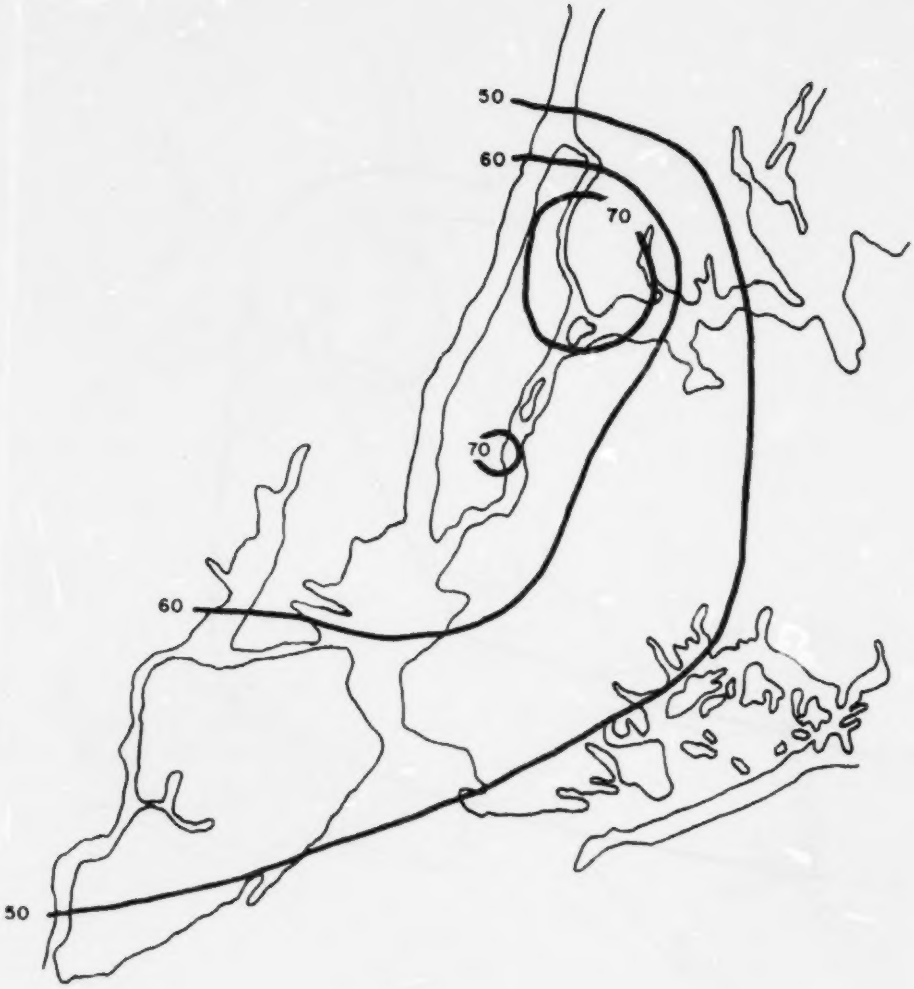

Figure 6-10. New York City Regional Modeling Analysis for SO_2 - 1980 ($\mu g/m^3$).

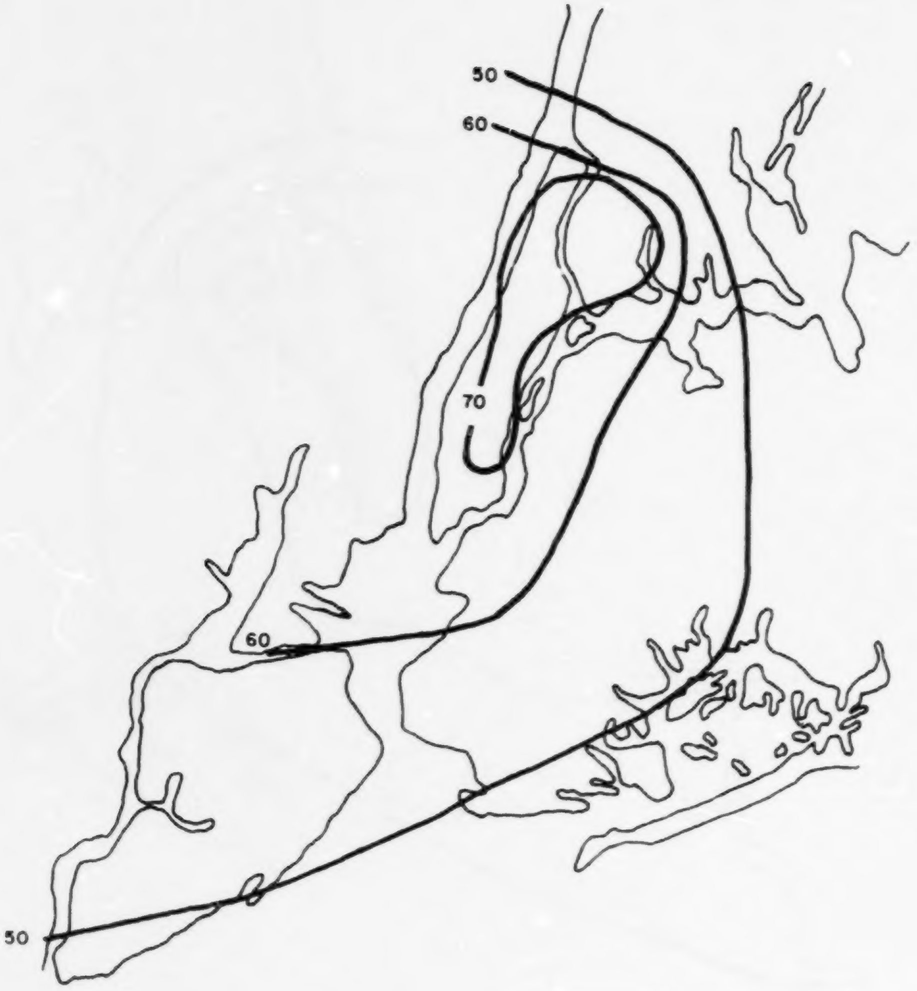

Figure 6-11. New York City Regional Modeling Analysis for SO_2 - 1985 ($\mu g/m^3$).

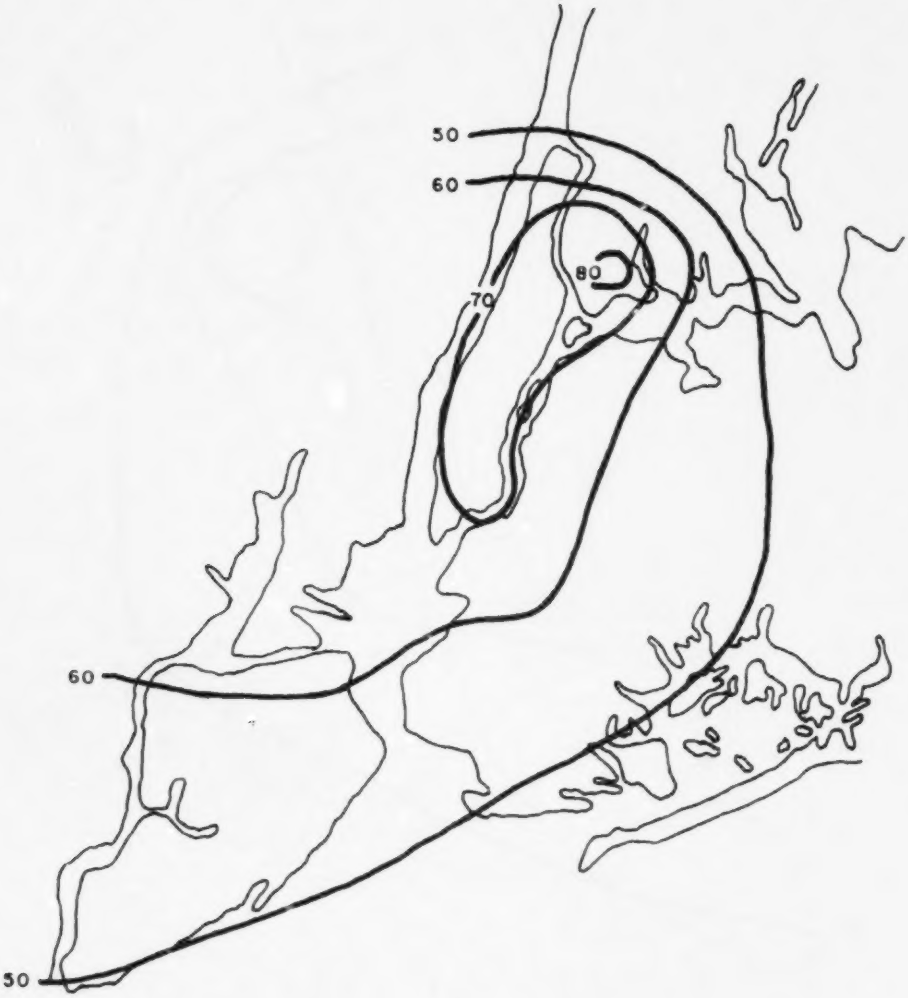

Figure 6-12. New York City Regional Modeling Analysis for SO_2 - 2000 ($\mu g/m^3$).

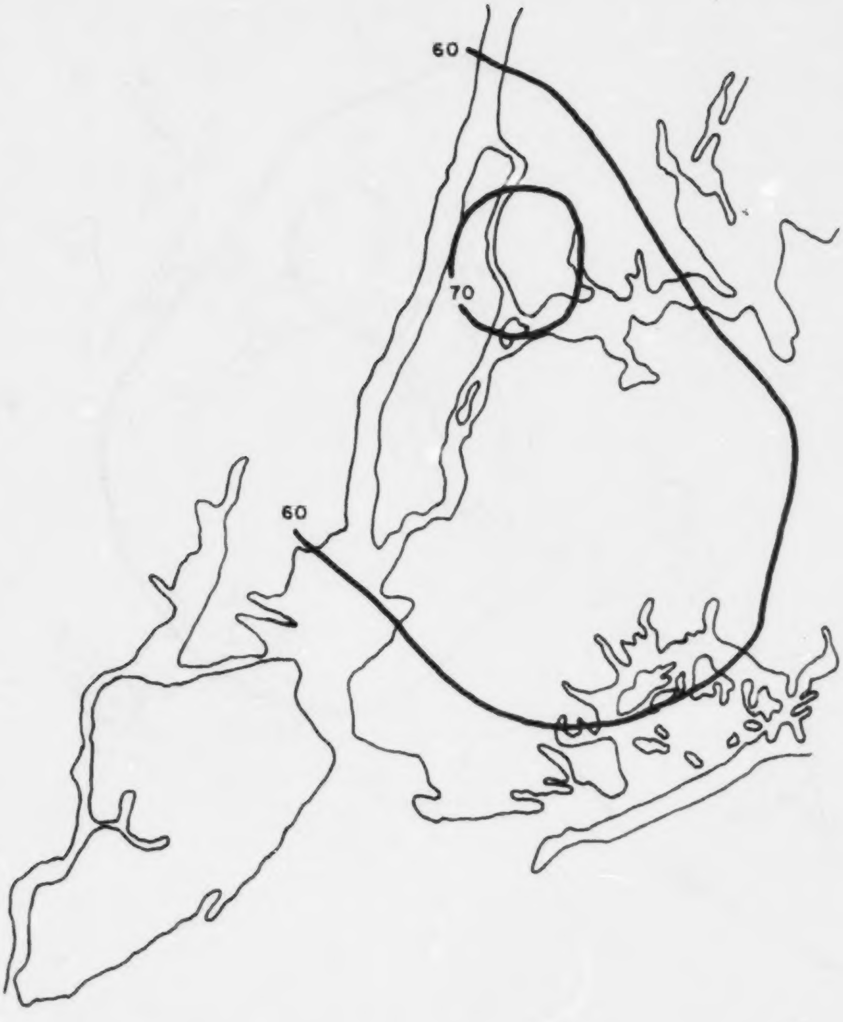

Figure 6-13. New York City Regional Modeling Analysis for TSP - 1974 ($\mu g/m^3$).

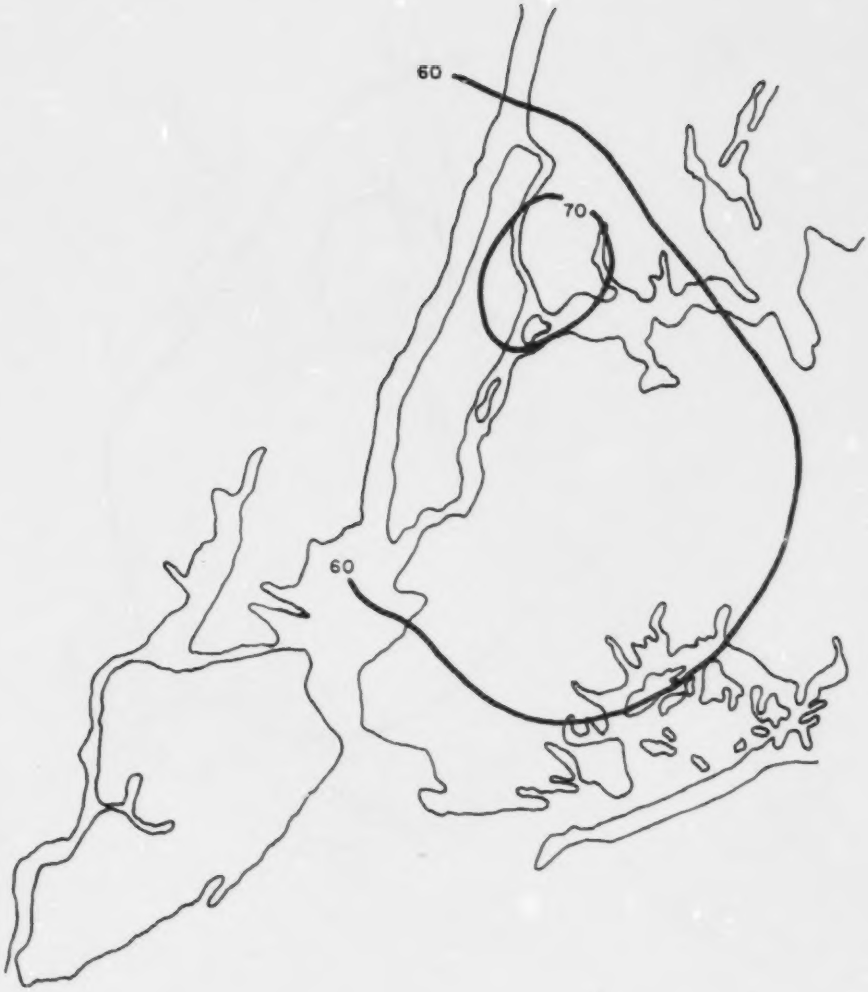

Figure 6-14. New York City Regional Modeling Analysis for TSP - 1980 ($\mu g/m^3$).

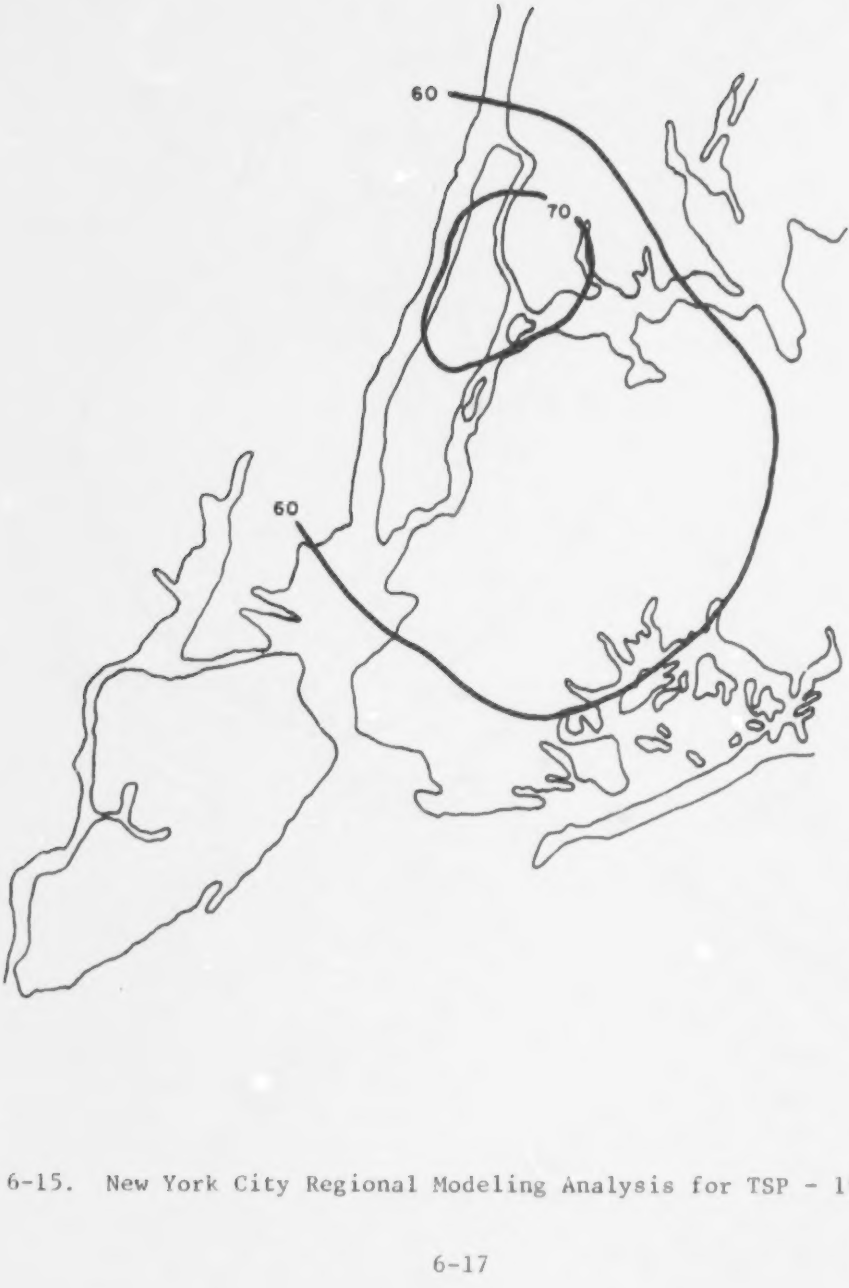

Figure 6-15. New York City Regional Modeling Analysis for TSP - 1985 ($\mu g/m^3$).

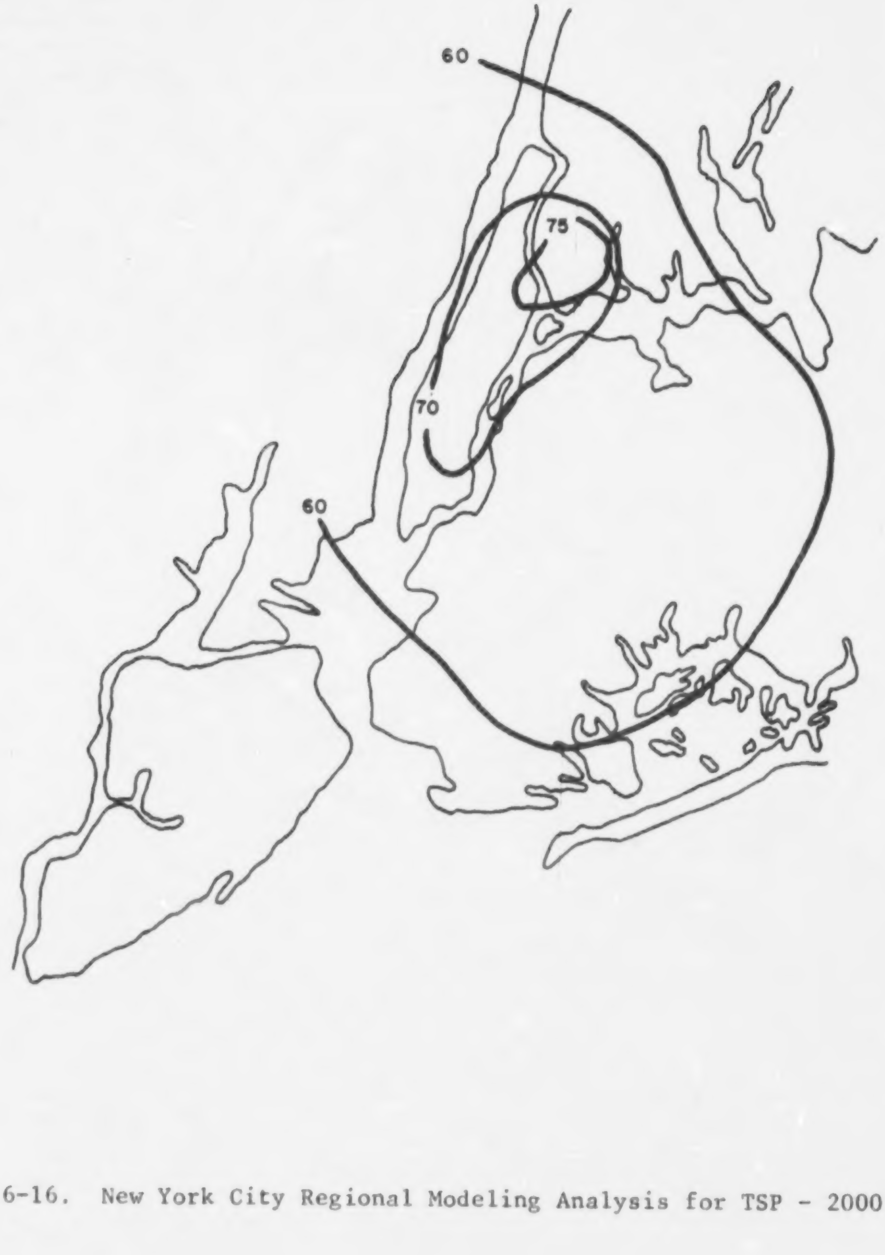

Figure 6-16. New York City Regional Modeling Analysis for TSP - 2000 ($\mu g/m^3$).

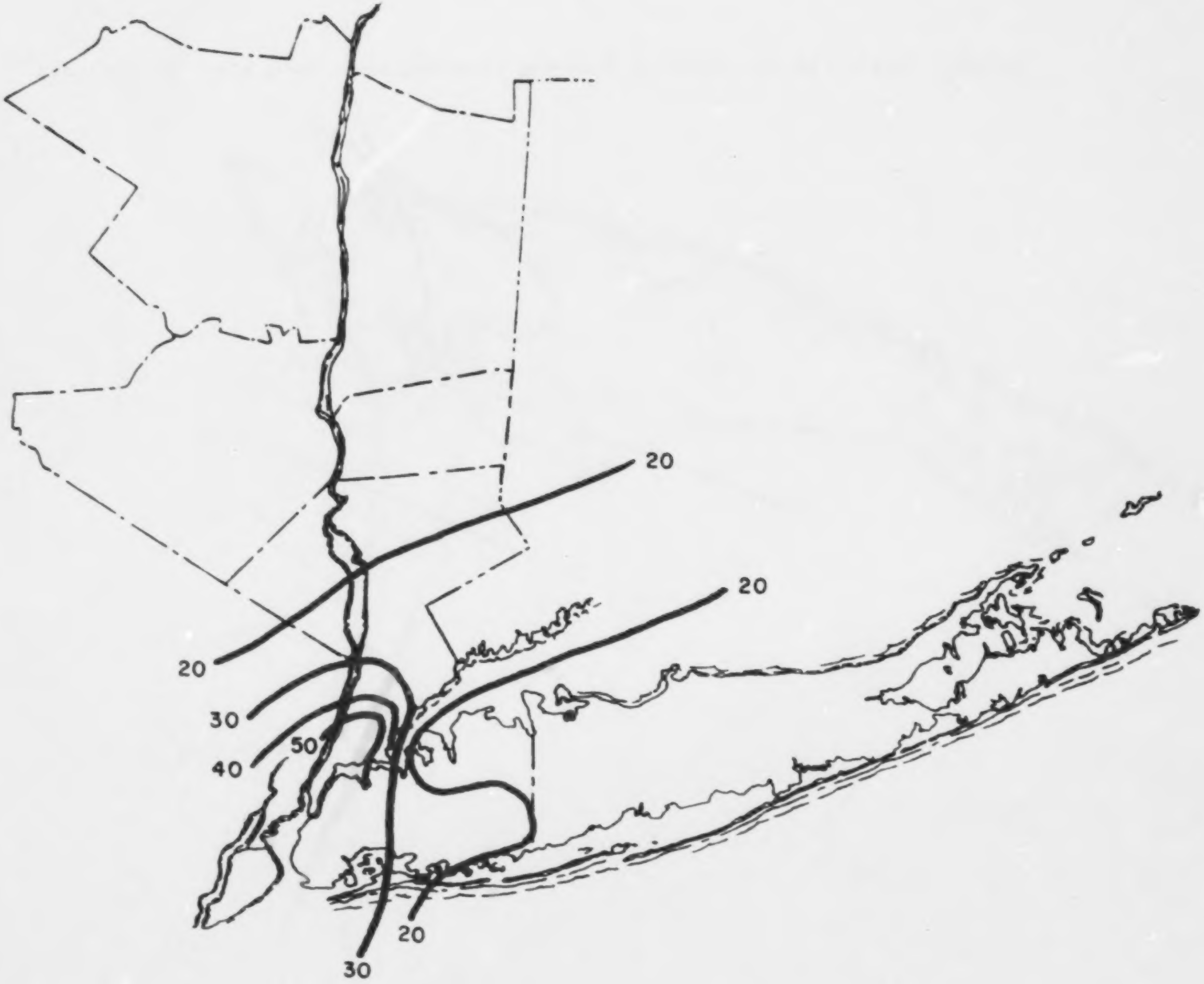

Figure 6-17. New York State Regional Modeling Analysis for SO_2 - 1974 (μg/m^3).

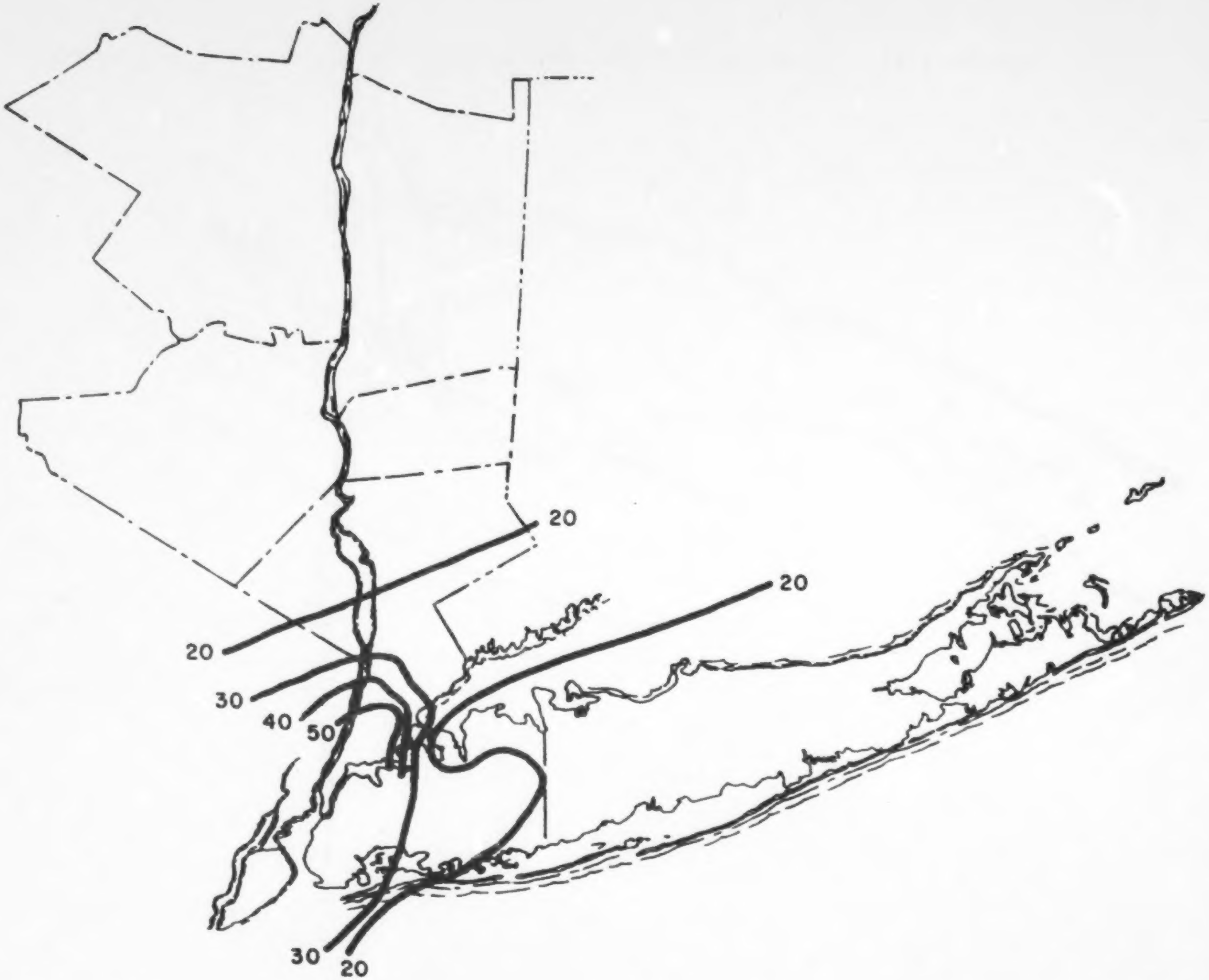

Figure 6-18. New York State Regional Modeling Analysis for SO_2 - 1980 (μg/m^3).

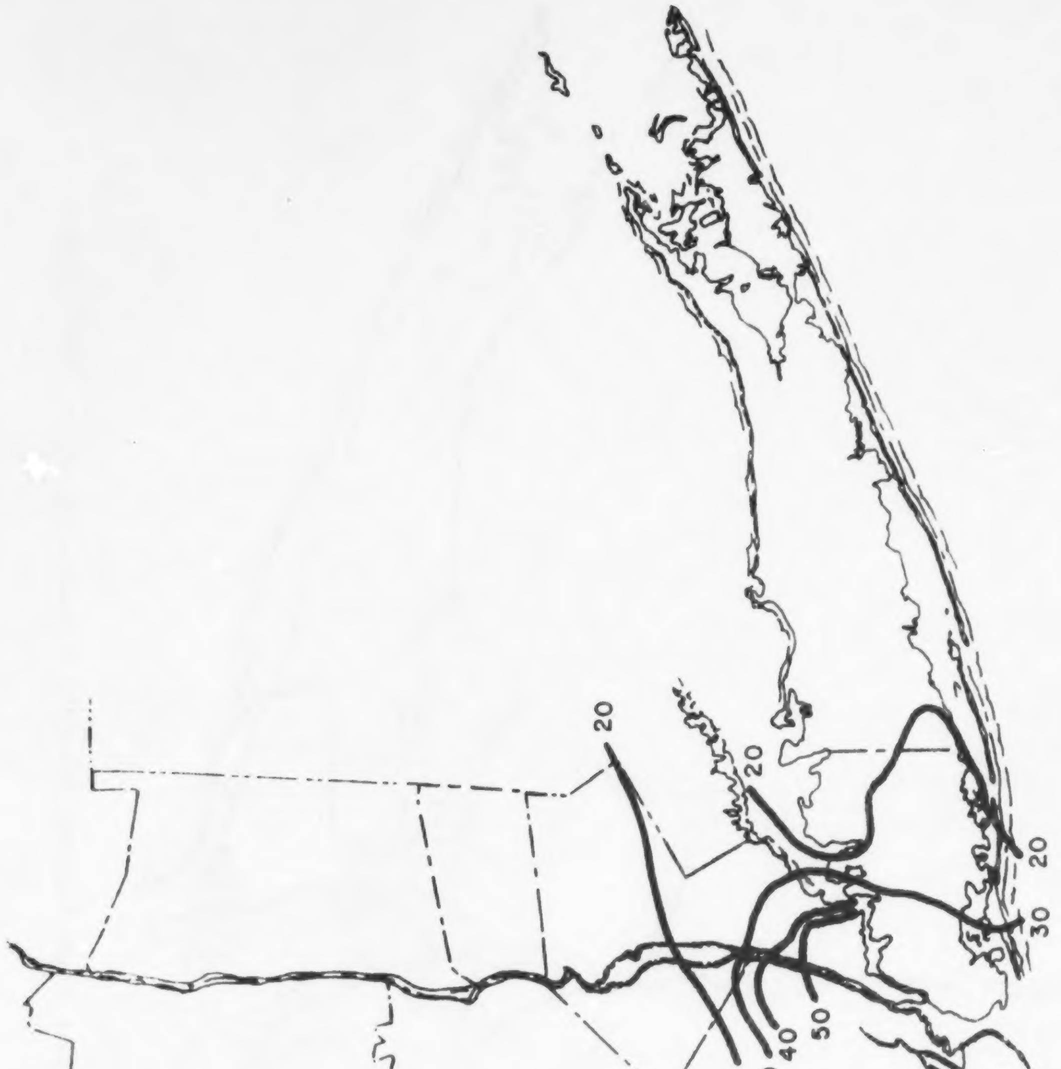

Figure 6-19. New York State Regional Modeling Analysis for SO_2 - 1985 ($\mu g/m^3$).

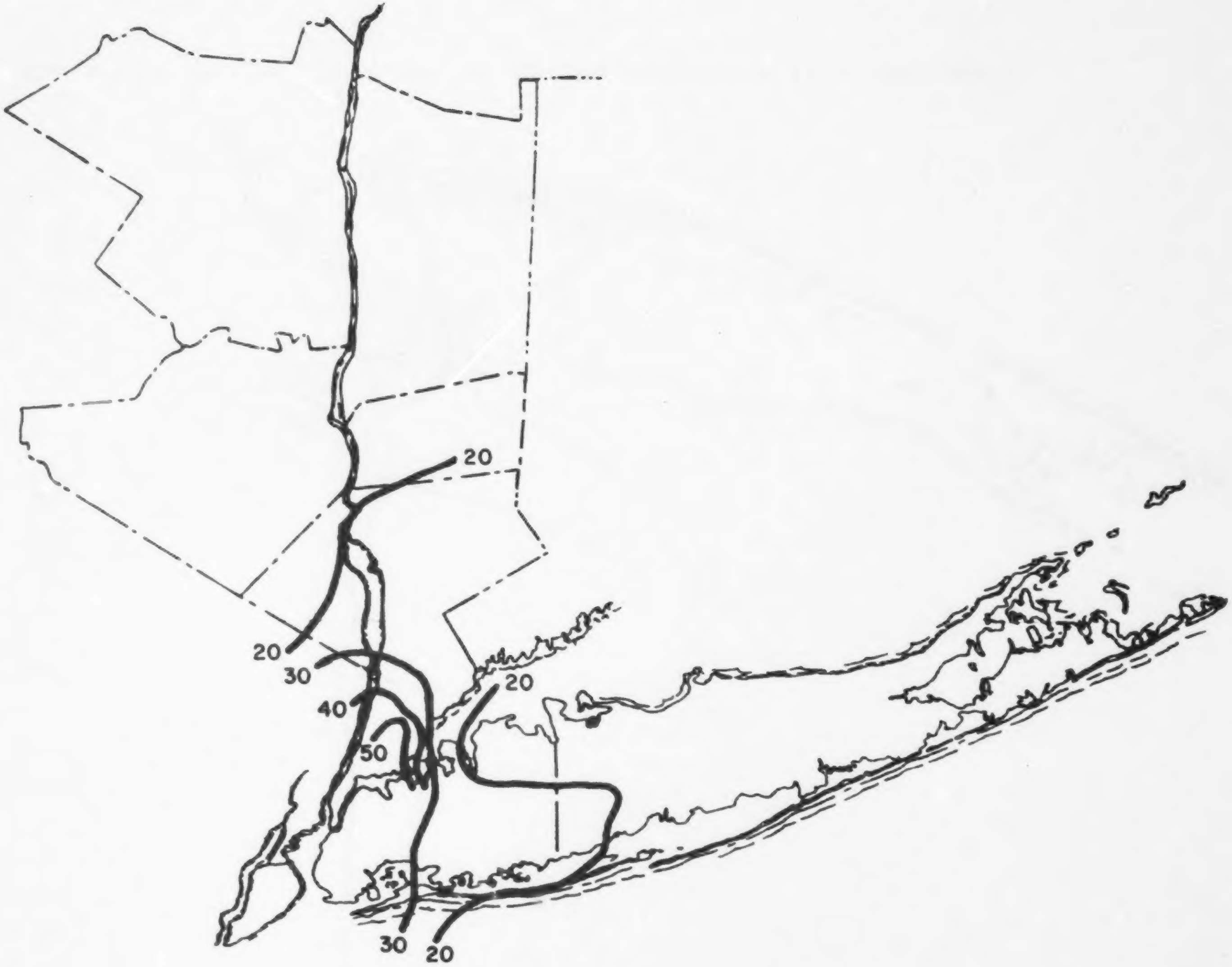

Figure 6-20. New York State Regional Modeling Analysis for SO_2 - 2000 (μg/m^3).

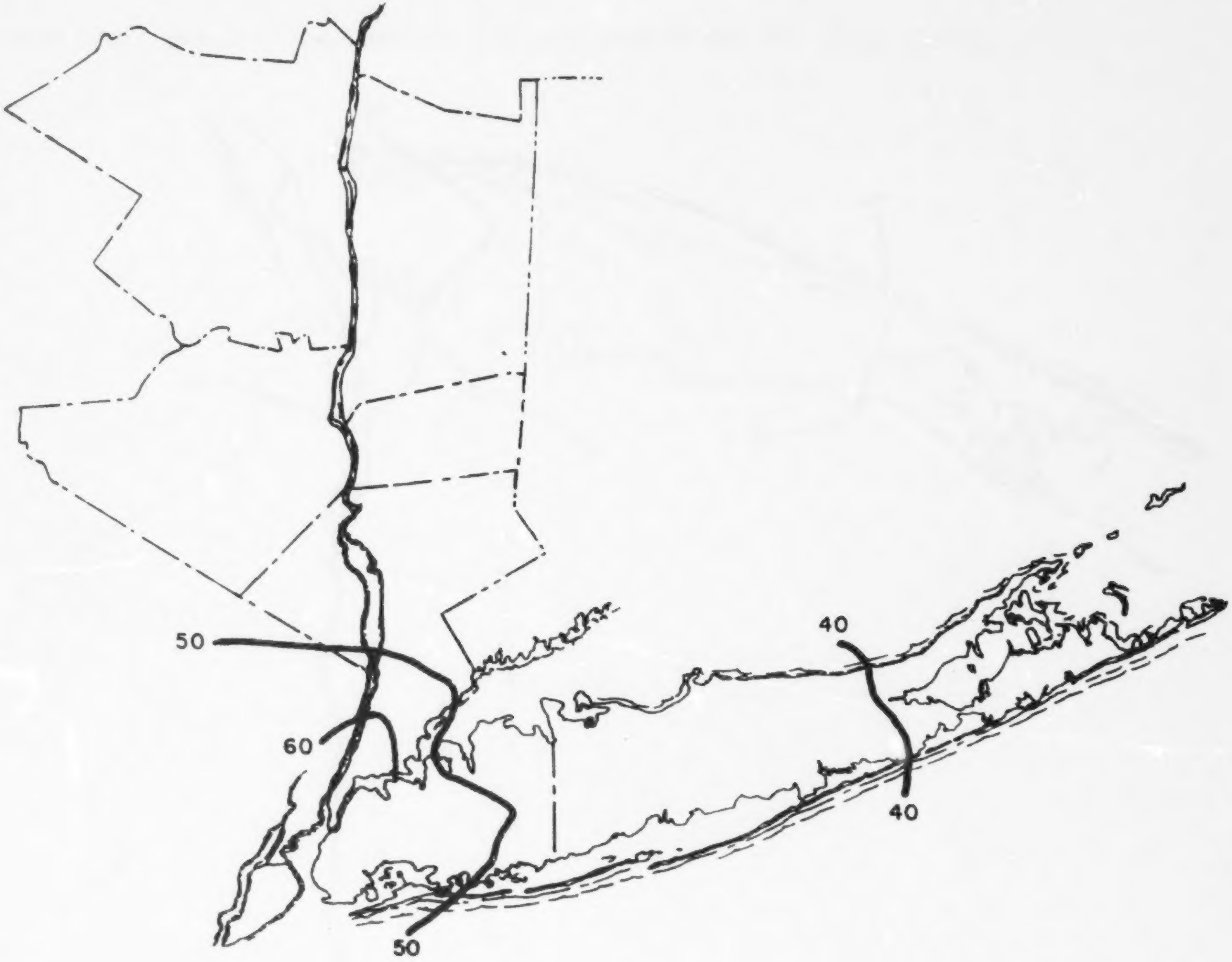

Figure 6-21. New York State Regional Modeling Analysis for TSP - 1974 (μg/m^3).

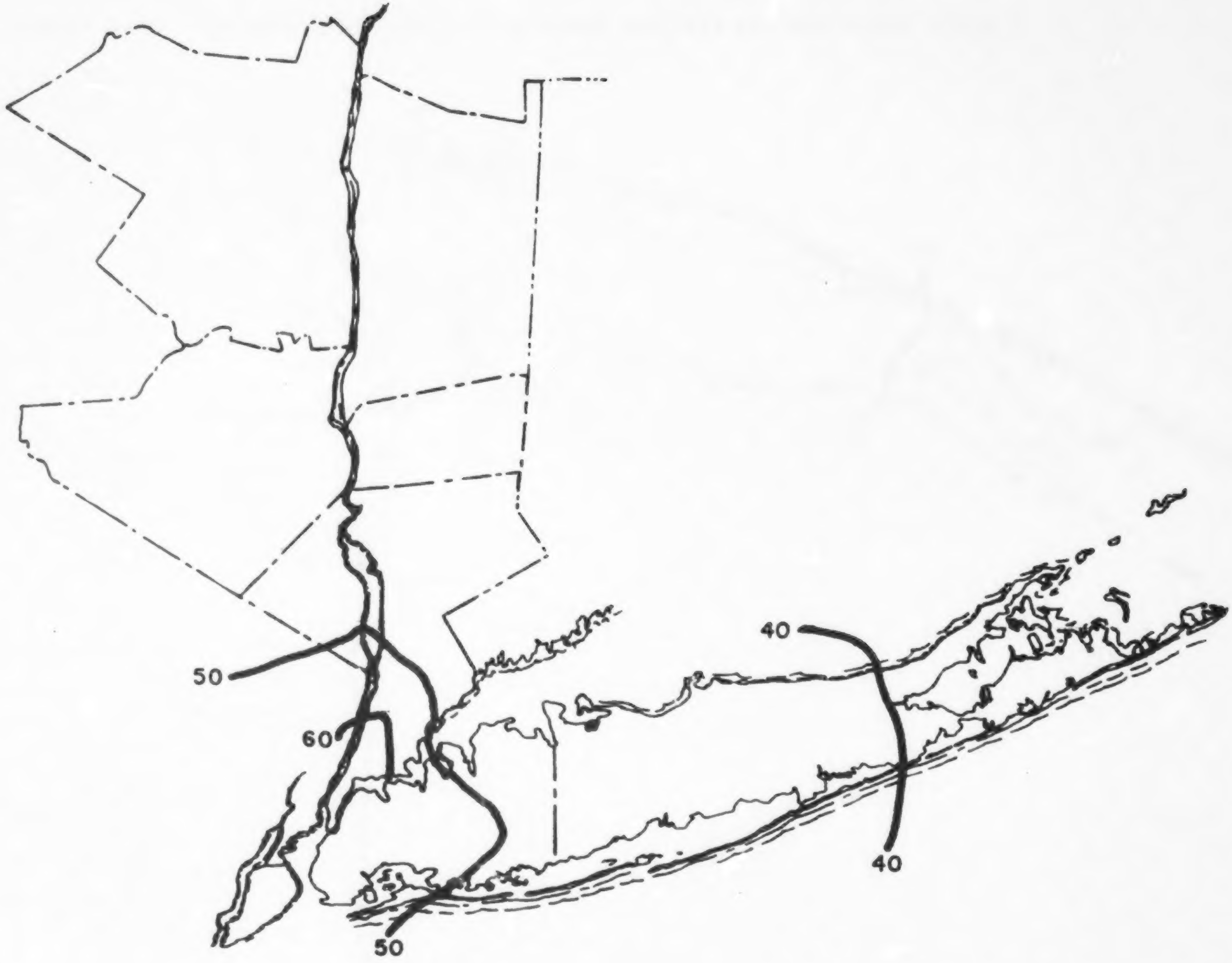

Figure 6-22. New York State Regional Modeling Analysis for TSP - 1980 ($\mu g/m^3$).

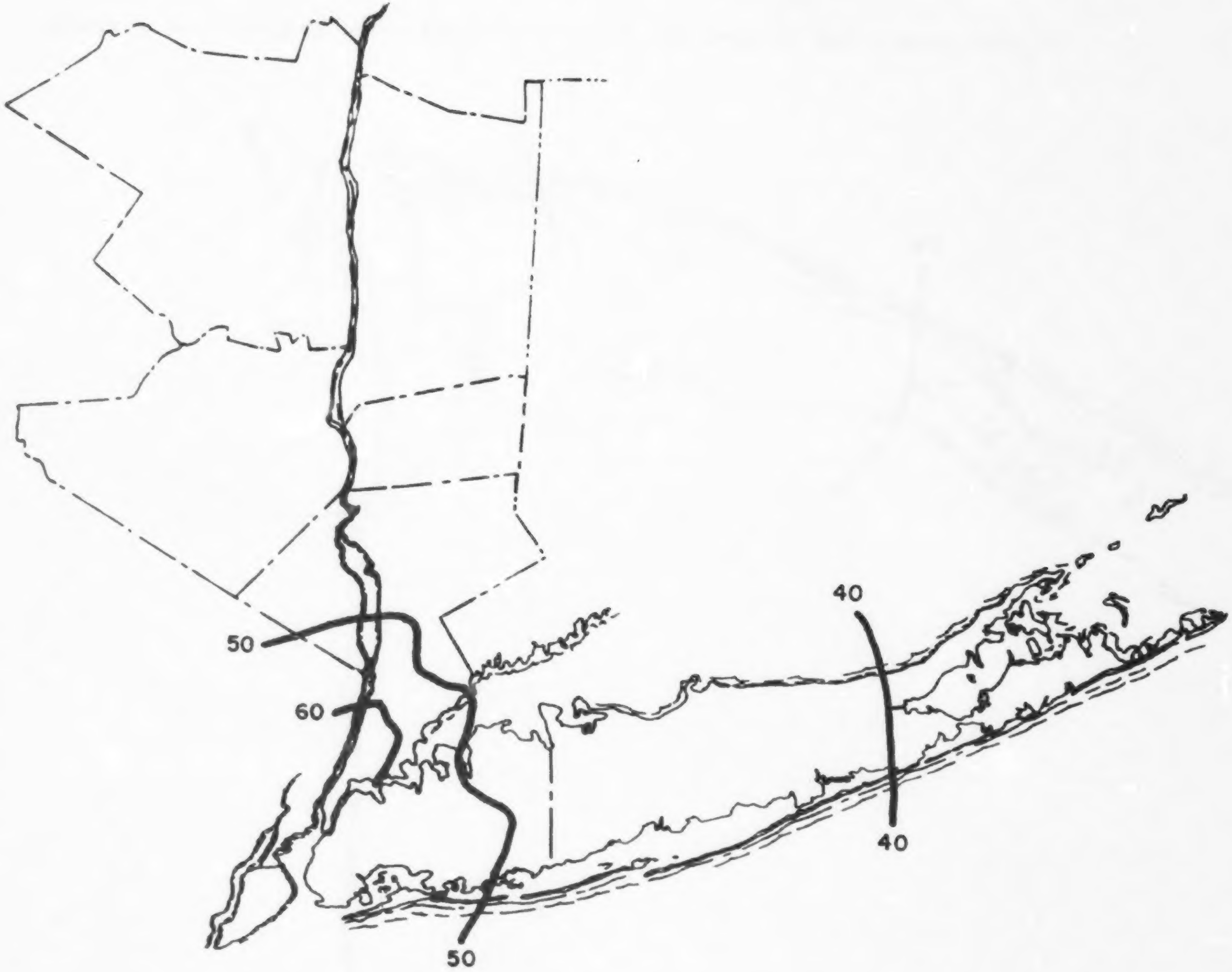

Figure 6-23. New York State Regional Modeling Analysis for TSP - 1985 ($\mu g/m^3$).

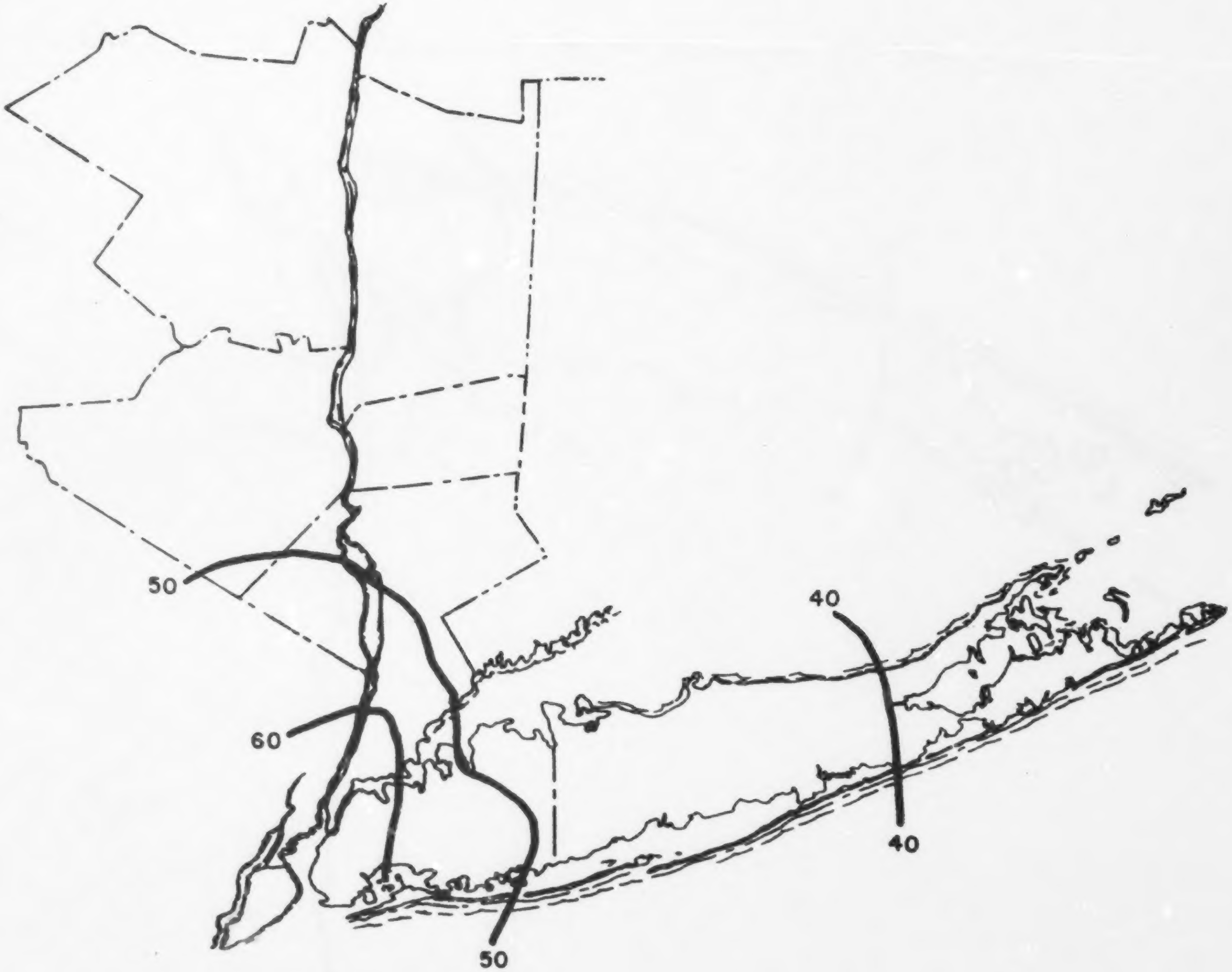

Figure 6-24. New York State Regional Modeling Analysis for TSP - 2000 (μg/m^3).

SECTION 7

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APPENDIX A

SUMMARIES OF COMPARISON OF TRI-STATE AND COUNTY PLANNING BOARD DATA

NEW JERSEY

NEW JERSEY	PAGE
BERGEN COUNTY	A-3
ESSEX COUNTY	A-5
HUDSON COUNTY	A-7
MIDDLESEX COUNTY	A-9
MONMOUTH COUNTY	A-12
MORRIS COUNTY	A-14
PASSAIC COUNTY	A-16
SOMERSET COUNTY	A-18
UNION COUNTY	A-20

NEW YORK

DUTCHESS COUNTY	A-23
NASSAU COUNTY	A-25
NEW YORK CITY - FIVE BOROUGHS	A-27
ORANGE COUNTY	A-30
PUTNAM COUNTY	A-32
ROCKLAND COUNTY	A-34
SUFFOLK COUNTY	A-36
WESTCHESTER COUNTY	A-38

NEW JERSEY

BERGEN COUNTY - NEW JERSEY

1. Population

Recommendation: Accept Tri-State population projections.

Discussion: Following is a comparison of various agencies' population projections:

	1974	1980	1985	2000
Tri-State	914,088	941,046	996,338	1,095,176
N.J. State Series II	910,485	927,760	941,980	1,090,000*
Difference between Tri-State and N.J.-State	3,603	13,286	54,358	5,176
Percent difference	.4%	1.4%	5.5%	.5%
"303" Figures		970,000		1,105,000

*This figure was "cross-accepted" between Tri-State and Bergen County.

According to county planners, the N.J. State Department of Labor and Industry figures are the best estimates for the short run (1980 and 1985) while they accepted Tri-State's earlier figure of 1,090,000 for 2000 (which has apparently been changed slightly to the 1,095,176 figure provided to GCA).

2. Housing

Recommendation: Accept Tri-State projections.

Discussion: Following is a comparison of Tri-State and county projections of dwelling units:

	1974	1980	1985	2000
Tri-State	298,253	321,000	348,040	393,356
County	296,850	214,077	322,066	-
Difference	1,403	6,923	25,974	
Percent Difference	.5%	2.1%	7.5%	

3. Employment

Recommendation: Accept county estimates of employment

Discussion: The following table compares various agencies' employment projections:

	1974	1980	1985	2000
Tri-State	388,167	392,914	412,272	467,604
County	315,908	319,553	322,711	
"303"	331,000	421,900		497,500

County planners are comfortable with local county employment projections but feel that other agencies' estimates are unacceptable.

4. Land Use

Recommendation: Accept existing land use both dwelling units and nonresidential. Accept 1980, 1985, and 2000 projections of dwelling units and nonresidential floor area subject to certain modifications.

Discussion: Generally, the distribution pattern for the 1974 existing land use, 1980, 1985, and 2000 projection years is reasonably accurate for all years with the exception of the Hackensack Meadow area and smaller specific areas. Hackensack is controlled by the Hackensack Meadowlands Commission which has been delegated the power to zone by the State of New Jersey. Other specific areas due to local zoning policies will have more or less growth as noted on the Tri-State maps or county zoning maps.

ESSEX COUNTY - NEW JERSEY

1. Population

Recommendations: Adopt New Jersey "303" figures.

Discussion: Following is a comparison of various agencies' projections:

	1974	1980	1985	2000
County Planning Board	941,130	955,220	972,230	
Tri-State	938,767	864,896	863,951	907,841
N.J. State "303"		960,000		1,010,000
N.J. State Series II		938,670	941,025	948,090
Difference between Tri-State and "303" projections		95,104		40,249
Percent difference		11%		4%

County planners indicate that the decline in population projected by Tri-State is incorrect. Overall population in the county is stable because while some areas have declined this has been offset by growth in other areas.

2. Housing

Recommendation: Adopt estimates made by using average household size and "303" population.

Discussion: The following table compares Tri-State housing projections and GCA estimates:

	1974	1980	1985	2000
Tri-State	312,980	307,135	313,684	335,210
"303" estimates	314,759	340,426	-	372,694
Household size	2.99	2.82	2.75	2.71
Difference between Tri-State and estimate	1,779	33,291		37,484
Percent difference	< 1%	11%		11%

3. Employment

Recommendation: Use "303" employment projections.

Discussion: Following is a comparison of Tri-State and "303" employment projections:

	1974	1980	2000
Tri-State	413,416	401,227	423,272
"303"		440,200	452,000
Difference		38,973	28,728
Percent difference		9.7%	6.8%

According to county planners the 5-year period 1975 through 1980 in contrast to the preceding 5 years will not see the decline in jobs as envisioned by Tri-State. Many companies have left the area but are rapidly being replaced by other companies.

4. Land Use

Recommendation: Accept the 1974 distribution of dwelling units and nonresidential land use. The 1980 distribution is questionable. The 1985 and 2000 requires some modification.

Discussion:

The 1980 distribution of dwelling units and nonresidential, according to Essex County planners appears to be wrong. Tri-State data indicates a decrease throughout the county in dwelling units and nonresidential floor area. Planners stated that, except for Newark and East Orange, rehabilitation housing programs and new housing in many towns indicate Tri-State data require modification. Also, vacated plants, and consequently, the nonresidential decreases are probably overstated. The 1985 and 2000 patterns may require modification depending on how changes in total housing affects relative distribution of housing.

HUDSON COUNTY - NEW JERSEY

1. Population

Recommendations: Adopt "303" population estimates.

Discussion: The following figure compares various agencies' population projections:

	1974	1980	1985	1990	2000
County		624,550		665,825	681,300
Tri-State	616,511	584,553	585,048		578,899
N.J. State "303"		615,000		630,000	630,000
N.J. State Series II		615,175	618,170	621,165	627,155
Difference between "303" and Tri-State		30,447			51,101
Percent difference		5.2%			8.8%

"303" population projections appear most reasonable in light of county planners knowledge of recent trends in housing and redevelopment in key areas. Apparently, Tri-State agreed in 1977 to raise its projections in view of these considerations.

2. Housing

Recommendation: Adopt county housing projections.

Discussion: The following figures compare Tri-State and county housing projections:

	1970	1974	1980	1985	1990	2000
County	207,499		224,396		253,190	270,855
Tri-State		212,344	211,661	216,585		225,675
Difference			12,375			45,180
Percent difference			6%			20%

The Tri-State Regional Planning Commission, according to the County has agreed to adjust its housing figures, which being based on the same empirical methodology is more reflective of actual local trends, although it is subject to vagaries of local political and economic forces in addition to overall regional trends.

3. Employment

Recommendation: Use county employment projections.

Discussion: The following figures compare the County, Tri-State and New Jersey "303" employment projections:

	1970	1974	1980	1985	1990	2000
County	259,200		264,100		281,500	288,000
Tri-State		281,365	276,080	287,293		322,737
N.J. State "303"			254,800		260,800	261,000
Difference between County and Tri-State			11,980			34,737
Percent difference			4.5%			12%

County employment estimates are more reflective of local trends. Tri-State has agreed to lower its figures.

4. Land Use

Recommendations: Existing 1974 dwelling units and nonresidential land use correct. The 1980, 1985, and 2000 configuration of dwelling units acceptable but with modification of Hackensack Meadowlands development. Nonresidential acceptable.

Discussion: Recent and projected development in the Hackensack Meadowlands and North Hudson area will require modification of Tri-State data. Nonresidential changes appear exaggerated.

MIDDLESEX COUNTY - NEW JERSEY

1. Population

Recommendation: Accept "208" Water Quality Planning population projections.

Discussion: Following is a comparison of various agencies' population projections:

	1974	1980	1985	2000
Tri-State	625,904	670,976	756,475	890,420
"208"	621,364	672,213	727,501	817,465
N.J. State Series II		639,970	667,125	748,590
Difference between Tri-State and "208"	4,540	1,637	28,974	72,955
Percent difference	< 1%	< 1%	4%	9%

According to Middlesex County planners, the most recent Tri-State projections released in May 1977 the 2000 year population is 820,000 which is very close to the "208" projection of 817,465. The 1974, 1980, and 1985 Tri-State projections above are within acceptable limits. County planners feel that the 890,420 figure would never be attained; it is unrealistically high. The Middlesex County "208" figure is a single estimate between the Plan and Trend projections.

2. Housing

Recommendation: Adopt "208" derived housing estimates discussed below.

Discussion: The following table compares Tri-State projections with GCA projections made using"208" population figures and county estimates of average persons per dwelling unit:

	1974	1980	1985	2000
Tri-State	188,205	214,926	249,329	309,494
"208" derived estimates	176,524	192,061	208,453	217,613
Difference between Tri-State and "208" estimates	11,681	22,865	40,876	91,881
Percent difference	6.6%	11.9%	19.6%	42.2%

The significant difference between Tri-State and "208" housing estimates is a function of two factors: Tri-State's higher population projections, and Tri-State's housing distribution. Tri-State shows growth in areas that the county feels will not develop except at very low density. (See land use discussion.)

3. Employment

Recommendation: Accept Tri-State figures as given.

Discussion: Following is a comparison of Tri-State and Middlesex "208" projections:

	1974	1980	1985	2000
Tri-State	269,474	284,267	309,263	363,350
"208"	257,597	283,731	309,860	358,898
Difference between Tri-State and "208"	11,877	536	597	4,452
Percent	4.6%	1%	1%	1.2%

Given the small discrepancies between the Middlesex "208" and Tri-State numbers, there is no anticipated gain in modifying the Tri-State numbers.

4. Land Use

Recommendations: Accept 1974 existing pattern of dwelling units and nonresidential. The 1980, 1985, and 2000 patterns of dwelling units and nonresidential not acceptable without extensive modification.

Discussion: In the Southern Raritan River Basin area in Southern Middlesex County, zoning and environmental constraints, county and state policy make it unlikely to see the extensive growth of dwelling units shown in Tri-State distribution. Nonresidential land is too widely spread throughout the county and is unreflective of zoning realities. Middlesex County planners indicate that more recent Tri-State data may reflect these considerations brought to attention of Tri-State by the county.

MONMOUTH COUNTY - NEW JERSEY

1. Population

Recommendation: Accept Tri-State pending resolution of difference among County, Tri-State, and New Jersey State officials.

Discussion: Following is a comparison of various agencies' population projections:

	1974	1980	1985	2000
County	505,350		675,000	890,000
Tri-State	476,350	541,161	589,000	681,090
N.J. State Series II			522,880	581,485
Difference between Tri-State and County	29,000	503,345	85,399	208,910
Percent	5.7%		12.6%	23.5%

Monmouth County planners feel that Tri-State figures are unrealistically low in view of rapid growth in recent times in the county. However, state water quality planning indicates the county cannot maintain as high growth as projected.

2. Housing

Recommendation: Accept Tri-State if population accepted. Otherwise, use appropriate average of people per dwelling unit and estimate housing accordingly.

Discussion: Tri-State housing projections are as follows:

	1974	1980	1985	2000
Total dwelling units	165,441	182,244	202,584	243,340
Persons/DU	2.88	2.97	2.91	2.80

The county planning staff feels that Tri-State estimates of housing are unacceptably low.

3. Employment

Recommendation: Accept Tri-State employment estimates.

Discussion: County planners expressed general acceptance of Tri-State figures as shown below. The county has no figures with which to compare Tri-State projections.

	1974	1980	1985	2000
Total employment Monmouth County	156,120	167,416	176,710	207,171

4. Land Use

Recommendations: Accept Tri-State existing 1974 land use pattern for dwelling units and nonresidential floor area. Projections of 1980, 1985, and 2000 dwelling units and nonresidential floor area not acceptable.

Discussion: A thorough comparison of Tri-State's projections for 1980, 1985, and 2000 with existing county data and the County Planner's knowledge of the area indicates serious discrepancies. In terms of the distribution of dwelling units in 1980 in particular, Tri-State has focused development in older areas whereas in reality development is occurring now in the less-developed, vacant, or newly developing suburban areas with good access to major arterials such as the Route 9 and Garden State Parkway. The 1985 and 2000 distribution shows this presently emerging pattern more clearly.

The industrial/commercial development (nonresidential) generally seemed much too spread out whereas, in reality, it is concentrating along major highway corridors. Certain areas shown as developing, particularly in the southwest corner of the county will not develop until the 2000 time frame due to certain natural constraints and sewage problems.

MORRIS COUNTY - NEW JERSEY

1. Population:

Recommendations: Accept Tri-State projections.

Discussion: Following is a comparison of various agencies' population projections:

	1974	1980	1985	2000
Tri-State	406,540	441,732	484,311	551,954
State "303"		449,000		600,000
N.J. State Series II		430,580	453,235	521,200
Difference between "303" and Tri-State		7,268		48,046
Percent difference		1.6%		8.7%

County planners estimate 2000 population to reach a level of at least 550,000. New Jersey Department of Labor and Industry Series II projections are considered too low for Morris County. The most recent Tri-State figure for year 2000 is 520,000.

2. Housing

Recommendation: Accept Tri-State projections.

Discussion: The Tri-State projections are within 5 percent of housing estimates made by dividing appropriate county estimates of family size into Tri-State population figures.

Tri-State housing figures are as follows:

1974	1980	1985	2000
127,783	143,301	160,549	192,375

3. Employment

Recommendations: Accept Tri-State employment projections.

Discussion: Following is a comparison of Tri-State and New Jersey "303" figures:

	1974	1970	1985	2000
Tri-State	143,824	149,325	158,034	180,949
"303"		183,700		281,100

In keeping with population and housing, the "303" figures are seen as being too high.

4. Land Use

Recommendations: Accept existing land use pattern of dwelling units and nonresidential floor areas as shown for 1974. The 1980, 1985, and 2000 pattern of dwelling units not acceptable. Nonresidential pattern with small modifications is acceptable.

Discussion: Growth in western and northern areas of county is not reflected on Tri-State data maps for 1980, 1985, and 2000. County planners feel that newer Tri-State data may reflect these growth areas.

PASSAIC COUNTY - NEW JERSEY

1. Population

Recommendation: Adopt New Jersey State Series II projections.

Discussion: Following is a comparison of various agencies' population projections:

	1974	1980	1985	2000
Tri-State	461,399	457,637	467,556	498,013
New Jersey State Series II	472,760	485,245	496,840	537,625
"303"	503,000			575,000
Percent difference between Tri-State and State Series II	2.4%	5.7%	5.9%	7.4%

County planning staff feels that Tri-State figures are low and the New Jersey State Department of Labor and Industry Series II projections are more realistic.

2. Housing

Recommendation: Accept Tri-State housing projections.

Discussion: Although there are no official county housing projections, estimates may be derived by dividing New Jersey State Series II population by the average household size of 3.02 as follows:

	1974*	1980	1985	2000
Tri-State	150,513	160,767	167,622	181,430
Derived estimates	157,927	160,677	164,516	178,022
Percent difference	4.7%	< 1%	1.9%	1.9%

*The 1974 is a comparison of actual county dwelling units with Tri-State estimates.

3. Employment

Recommendation: Accept Tri-State employment projections.

Discussion: There are no county or other projections of employment with which the Tri-State figures shown below may be compared.

	1974	1980	1985	2000
Total employment	191,133	190,902	194,855	207,896

4. Land Use

Recommendations: Accept existing land use pattern. Projection of dwelling units is acceptable for 1980, 1985, and 2000.

Distribution of nonresidential land use questionable.

Discussion: There is a significant problem in the nonresidential category as the Tri-State figures and distribution show a significant decline in nonresidential throughout the County. County planners indicate that while current trends to show a decline in industries in especially older industrial areas, this is not true for the whole county. Also, the growth of nonresidential occurs in areas zoned only for residential. (This seems to be a problem in other counties as well.)

SOMERSET COUNTY - NEW JERSEY

1. Population

Recommendation: Accept Tri-State population projections.

Discussion: The following table compares various agencies' population projections:

	1974	1980	1985	2000
Tri-State	216,074	215,778	241,950	288,117
County		228,000		320,000
"303"		231,000		310,000
New Jersey Series II		215,385	223,525	247,945
Difference between Tri-State and "303" figures		12,222		21,883
Percent difference		5.6%		7.6%

The Tri-State population projections are a reasonable comprise among the various agencies' projections.

2. Housing

Recommendations: Accept Tri-State housing projections.

Discussion: Following are Tri-State total dwelling units:

	1974	1980	1989	2000
Total dwelling units	66,031	69,306	79,788	99,687

The county itself has not made its own housing projections to compare with Tri-State's.

3. Employment

Recommendation: Accept Tri-State employment projections.

Discussion: Following is a comparison of various agencies' projections of employment:

	1974	1980	1985	2000
Tri-State	88,865	90,035	96,901	111,933
County	79,500	87,300	99,200	118,500
"303"		80,850		121,800
Difference between Tri-State and County	9,365	2,735	2,299	6,567
Percent difference	11.8%	3%	2.4%	5.9%

4. Land Use

Recommendation: Accept Tri-State existing land use and projections to 1980, 1985, and 2000 except for nonresidential.

Discussion: The overall configuration of growth in dwelling units and nonresidential floor area conforms to existing and projected trends. However, there are certain specific areas that are currently growing not shown on Tri-State maps that require some corrections. As is usually the case there are many areas of nonresidential growth which occur in a very spreadout pattern and in areas zoned only for residential use.

UNION COUNTY - NEW JERSEY

1. Population

Recommendation: Accept Tri-State projections of population.

Discussion: Population is seen by the county as stable to declining to the year 2000. Following is a table which compares various agencies' population and projections to the year 2000:

	1974	1980	1985	1990	2000
County	536,250	531,600		531,100	530,900
Tri-State	560,409	539,410	536,370		541,718
"303"		545,000		550,000	560,000
State Series II		560,145	568,080	576,015	591,885

2. Housing

Recommendation: Accept Tri-State housing projections.

Discussion: Following is a comparison of Tri-State and county housing projections:

		1980	2000
County:	High	187,500	224,000
	Low	178,500	186,000
Tri-State		178,712	194,153

3. Employment

Recommendation: Accept Tri-State employment projections.

Discussion: Following is a comparison of Tri-State and New Jersey State "303" projections:

	1972	1974	1980	1985	1990	2000
"303"	251,600		289,200		296,900	316,900
Tri-State		306,813	300,370	296,822		292,748

4. Land Use

Recommendations: Accept Tri-State 1974 existing land use and 1980, 1985, and 2000 projections of dwelling units. Nonresidential in question.

Discussion: Projections of increase in dwelling units appear basically sound in its areal distribution and quantity, especially given that the housing figures of the county and Tri-State correspond closely. Also, the county has very little developable land remaining.

Nonresidential projections appear reasonable in some cases, but in many areas such as in Elizabeth and Linden the decreases shown in 1980 and 1985 appear to county planners as unreflective of recent trends towards stabilization and reoccupancy of abandoned or empty establishments.

NEW YORK

DUTCHESS COUNTY - NEW YORK

1. Population

Recommendation: Adopt '208' projections

Discussion: Following is a comparison of Tri-State and 208 Figures:

	1974	1980	1985	2000
Tri-State	233,503	270,940	292,172	330,387
'208'	233,100	247,900	268,800	328,400
Difference	403	23,040	23,372	1,987
<1%	1%	9.3%	8.6%	<1%

2. Housing

Recommendation: Accept Tri-State

Discussion: The following table compares Tri-State figures with estimates derived by using '208' population and county estimates of household size:

	1974	1980	1985	2000
Tri-State	76,282	86,305	95,383	115,079
County	75,649	83,108	92,958	115,000
Household size	3.08	2.96	2.84	2.80
Difference between Tri-State and county	633	2,927	2,425	79
%	<1%	3.5%	2.6%	<1%

3. Employment

Recommendation: Accept Tri-State data

Discussion: The only county data available for 1985 and 1990 suggests that Tri-State projections are reasonable given the historical trends in population growth and generally close relationship between population and employment, other factors being equal.

	1974	1980	1985	2000
Tri-State	95,915	103,049	106,713	120,126

4. Land Use

Recommendation: Accept Tri-State distribution for 1974 (existing) and projections for 1980, 1985 and 2000.

Discussions: Except for minor modifications in Poughkeepsie are for 1985 and 2000, the Tri-State projections of housing and nonresidential land use are in accordance with zoning and planner's knowledge of expected growth in the county.

NASSAU COUNTY - NEW YORK

1. Population

Recommendation: Accept "208" projections.

Discussion: Below is a table which illustrates the various agencies population projections:

	1974	1980	1985	1995	2000
County*	1,431,900	1,441,700	1,460,900		
Tri-State	1,398,045	1,350,640	1,356,153		1,405,750
"208"	1,455,947	1,467,789	1,475,694	1,486,565	
Difference between "208" and Tri-State	57,902	117,149	119,541		
Percent difference	4%	8.7%	8.8%		

County planners have stated that the above Tri-State figures exaggerate the population losses. The overall pattern is one of stability or gain in population.

2. Housing

Recommendation: Accept Tri-State dwelling unit projections subject to qualifications listed below.

Discussion: Nassau County itself has not made projections of housing Nassau/Suffolk Regional Planning Board in a recent Coastal Zone Management study has made joint Nassau/Suffolk estimates which are discussed in Suffolk section. Tri-State has a different set of assumptions regarding family size: they project a larger decrease in family size than the county does. Consequently, if family size remains large, the Tri-State numbers would be inflated; conversely, if family size declines as Tri-State predicts, then Tri-State figures may be the better estimate.

	1974	1980	1985	2000
Tri-State estimates of total dwelling units	409,327	425,845	439,659	483,133

3. Employment

Recommendation: Accept Tri-State estimates except reservation regarding year 2000 discussed below.

Discussion: Given no separate Nassau County employment estimates as is the case in housing it is difficult to evaluate Nassau County alone. (See discussion in Suffolk County.) Joint Nassau/Suffolk County estimates compare favorably with Tri-State figures except for a 36 percent difference in the 2000 estimates.

4. Land Use

Recommendation: Accept Tri-State existing land use and projections for 1980, 1985, and 2000.

Discussion: The general pattern of dwelling units is a reasonably accurate picture of Nassau County. However, the distribution of nonresidential violates existing local zoning patterns and proposed coastal zone management policies. As has been seen in many counties, the nonresidential land use has been allocated over too large areas.

NEW YORK CITY - FIVE BOROUGHS

1. Population

Recommendations: Accept Tri-State population projections except Staten Island as discussed below.*

Discussion: Following is a comparison of Tri-State and "208" population projections by borough:

a. Bronx:	1974	1980	1985	2000
Tri-State	1,294,581	1,327,012	1,326,206	1,333,976
"208"	1,385,300	1,345,500	1,333,000	1,340,000
Difference	90,719	18,488	6,794	6,024
Percent difference	7%	1.4%	< 1%	< 1%

b. Kings	1974	1980	1985	2000
Tri-State	2,510,641	2,461,283	2,443,510	2,413,738
"208"	2,480,000	2,463,900	2,472,000	2,460,000
Difference	90,719	18,488	6,794	46,262
Percent difference	7%	1.4%	< 1%	1.9%

c. Manhattan:	1974	1980	1985	2000
Tri-State	1,506,969	1,504,589	1,515,451	1,515,097
"208"	1,454,400	1,461,500	1,475,000	1,486,000
Difference	52,569	43,089	40,451	29,097
Percent difference	3.6%	2.9%	2.7%	1.9%

d. Queens:	1974	1980	1985	2000
Tri-State	1,980,766	1,882,939	1,899,370	1,929,096
"208"	1,966,600	1,971,800	1,978,000	2,022,000
Difference	14,166	88,861	18,630	92,904
Percent difference	< 1%	4.7%	4.6%	4.8%

e. Staten Island:				
Tri-State	323,035	402,615	446,063	501,431
"208"	328,200	370,000	430,000	596,000
Difference	5,165	32,615	16,063	94,569
Percent difference	1.5%	8.8%	3.7%	18.8%

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[*] NYS DEC recommended the use of 208 figures for the Counties of Bronx and Kings.

The only significant differences are in the Staten Island projections for the year 1980 and 2000. New York City planners commented that Staten Island is expected to grow rapidly and consequently, this figure should be modified to meet these expectations.

2. Housing

Recommendations: Accept Tri-State housing projections.

Discussion: The following figure compares 1974 (208-1975) estimates of total housing units by borough:

	Tri-State	"208"	Difference	percent
Bronx	463,638	506,946	43,308	9.3%
Brooklyn	917,901	892,756	25,145	2.8%
Manhattan	734,966	709,838	29,128	3.5%
Queens	724,684	722,117	14,846	2%
Staten Island	103,408	103,953	545	< 1%
Totals	2,944,597	2,935,610	8,987	< 1%

Housing projections have not been made for the "208" project nor by the New York City Planning Office. The housing situation is very uncertain because it is highly influenced by national, state, regional, and local political and economic policies and decision that directly and indirectly affects housing both in terms of new units and rehabilitation programs.

3. Employment

Recommendation: Accept the Tri-State projections.

Discussion: There are no official New York City employment projections done by the City which looks at the year 2000. Following is a partial comparison of various agencies' estimates:

	1974	1980	1985	2000
Tri-State	3,734,277	3,858,750	3,885,339	3,974,806
New York City Office of Management and Budget	3,203,000 (1976)	3,029,000		
New York State Department of Labor and Industry	3,458,400		3,169,200	

In view of the high complex and variable situation, Tri-State projections are acceptable unless more recent Tri-State estimates can be obtained that incorporates more recent set of assumptions concerning the many factors which influence the employment situation.

4. Land Use

Recommendations: Accept Tri-State data subject to reservations discussed below.

Discussion: The Tri-State land use inventory is a reasonably accurate representation of the existing land use. In terms of projections for 1980, 1985, and 2000 City Planners felt that on the whole the Tri-State data represented a reasonable interpretation of current trends, given the variability in the economic and housing situation. However, the 1980 projection, in particular, seemed to have mistakes in that it did not indicate areas which are currently being rehabilitated such as in Manhattan. The Tri-State Regional Planning Commission, as mentioned above, should be consulted for the possibility of a more recent allocation of dwelling units and nonresidential floor area. The City Planners felt that it was impossible to evaluate the accuracy of the nonresidential projections.

ORANGE COUNTY - NEW YORK

1. Population

Recommendation: Adopt "208" projections

Discussion: The following table compares Tri-State and "208" projections:

	1974	1980	1985	2000
Tri-State	246,244	291,117	334,468	421,156
"208"	242,000	267,000	300,000	422,000
County			308,000	404,000
Difference between Tri-State and "208"	4,244	24,117	34,468	844
%	1.7%	9%	11%	1%

In view of the discrepancies in the 1980 and 1985 projections, the "208" figures are recommended.

2. Housing

Recommendation: Adopt county estimtes using "208" population and county estimates of average persons per dwelling unit.

Discussion: Following is a comparison of Tri-State and county estimates:

	1974	1980	1985	2000
Tri-State	85,180	99,935	116,282	151,602
County estimates	73,636	89,333	100,000	138,333
Average persons per dwelling unit	3.3	3.0	3.0	3.0
Difference between Tri-State and County	11,544	10,602	16,282	13,269
%	16%	12%	16%	10%

The "208" population was divided by county estimates of average persons per dwelling unit to arrive at estimates of total dwellings which are considered better than Tri-State figures shown above.

3. Employment

Recommendation: Accept Tri-State

Discussion: Given no county data or other sources of information with which to verify Tri-State's estimates, the Tri-State figures shown below will be utilized.

	1974	1980	1985	2000
Tri-State	85,776	99,338	102,880	125,956

4. Land Use

Recommendation: Accept existing (1974) and projected land use (1980, 1985 and 2000) for dwelling units and nonresidential land use.

Discussion: Orange County has worked closely with Tri-State and the distribution of land use reflects their close agreement.

PUTNAM COUNTY - NEW YORK

1. Population

Recommendation: Adopt "208" population projections for 1974, 1980, and 1985 - estimate 130,000 for 2000 - see discussion below.

Discussion: The following table shows various agencies' population projections for Putnam County:

	1974	1980	1989	1999	2000
Tri-State	65,302	72,441	76,521		84,988
"208"	68,765	79,200	92,000		130,200
Putnam County Planning Board	68,765		89,546	119,499	
Difference between Tri-State and "208"	3,463	6,759	15,429		45,212
Percent	5.3%	9.3%	20.2%		53%

According to the County Planner the Tri-State population projections are definitely too low. It was suggested that these low figures reflect Tri-State's view of Putnam County as basically "park land." The County planning staff "stands by" its own population figures and seriously questions if the "208" population of 130,200 will be attained. In view of these factors, it is recommended that 122,000 be used as a compromise projection estimate for the year 2000.

2. Housing

Recommendation: Adopt recommended figures shown in table below.

Discussion: The following table compares Tri-State and Putnam County estimates of housing units:

	1974	1980	1985	1995	2000
Tri-State	24,108	25,961	27,822		31,955
Putnam County	20,139		26,650	35,850	
Persons/unit	3.41		3.37	3.31	
Difference between Tri-State and County	3,969		1,172		
Percent difference	20%		4.4%		
Recommended estimates	20,165	23,225	27,299		36,858

In view of the differences in population among the various agencies discussed above and in view of the difference in average persons per dwelling unit between Tri-State and the County (county figures are presumably more accurate), it is recommended that the above figures be adopted. These estimates are derived by dividing the best population estimates by the county persons per dwelling unit for the appropriate projection year.

3. Employment

Recommendation: Accept Tri-State estimates of total employment.

Discussion: County planners accept the Tri-State estimates shown below. Putnam County does not have its own projections against which Tri-State projections may be verified.

	1974	1980	1989	2000
Total employment	13,156	14,220	15,117	18,673

4. Land Use

Recommendations: Accept Tri-State's land use inventory for 1974 and projections of dwelling units for 1980, 1985, and 2000. Nonresidential distribution for projection years is questionable.

Discussion: The Tri-State inventory of existing land use is a reasonable match of county land use as shown in county land use maps and according to county planners knowledge of areas. The 1980, 1985, and 2000 projections of dwelling units appear to be reasonable distribution according to zoning maps and county planners knowledge of existing and potential growth areas. The nonresidential areas are not sensitive to local zoning and seems to occur in areas which are wholly residential.

ROCKLAND COUNTY - NEW YORK

1. Population

Recommendation: Adopt "208" population projections.

Discussion: The following table compares various agencies' population projections:

	1974	1980	1985	2000
Tri-State	250,613	259,738	281,980	314,483
"208"	252,800	279,200	308,900	380,200
Rockland County Planning Board	260,000		315,000	375,000
Difference between Tri-State and 208	2,187	19,462	26,920	65,717
Percent difference	< 1%	7.5%	9.5%	21%

The Planning Board feels that the above Tri-State figures are too low. In view of the closeness of "208" and Rockland County Planning Board projections it is recommended that the "208" figures be adopted.

2. Housing

Recommendation: Adopt recommended housing figures as shown in discussion.

Discussion: The following table compares Tri-State projections of total dwelling units with recommended projections based on the "208" population divided by an average persons per dwelling unit as shown below:

	1974	1980	1985	2000
Tri-State	68,331	76,541	85,902	102,646
Recommended	74,352	83,343	93,606	115,212
Persons/dwelling unit	3.4	3.35	3.3	3.3
Difference between Tri-State and recommended	6,021	6,802	7,704	12,566
Percent	8.8%	8.9%	9%	12.2%

3. Employment

Recommendation: Accept Tri-State projections for employment.

Discussion: Following are the Tri-State projections for total employment in Rockland County.

	1974	1980	1985	2000
Total employment	78,469	82,738	86,364	96,393

The Rockland County Planning Board has not made projections of employment with which the Tri-State projections may be compared.

4. Land Use

Recommendations: Accept Tri-State existing land use inventory (1974). Distribution of 1980 dwelling units requires some modifications. The 1985 and 2000 dwelling unit distribution is all right. Nonresidential land use distribution has problems.

Discussion: The 1980 distribution of dwelling units requires modification because certain areas of the county now growing not shown on Tri-State maps. A 10 to 15 percent modification required. The Tri-State maps show nonresidential uses occurring in areas zoned solely for residential. This is a widespread phenomenon in this county as is the case in many counties and seems to result from the methodology which Tri-State uses to allocate nonresidential.

SUFFOLK COUNTY - NEW YORK

1. Population

Recommendation: Accept Tri-State projections.

Discussion: Following is a comparison of Tri-State and "208" population projections:

	1974	1980	1985	2000
Tri-State	1,283,401	1,465,938	1,578,732	1,747,657
"208"	1,279,690	1,411,737	1,542,123	1,828,750*
Difference	3,711	54,201	36,609	81,093
Percent	< 1%	3.8%	2.4%	4.6%

*Estimate arrived at using Coastal Zone Management Study for Nassau/Suffolk Counties.

Tri-State and "208" projections are sufficiently close to allow acceptance of either figure. They represent totally different methodologies.

2. Housing

Recommendation: Accept Tri-State dwelling unit projections.

Discussion: Suffolk County Planning Board does not have separate projections of housing. An examination of Coastal Zone Management projections for Nassau/Suffolk Counties combined gives the following comparison:

		1974	1980	1985	2000
Tri-State:	Nassau	409,327	425,845	439,659	483,133
	Suffolk	377,987	453,225	501,480	591,816
Tri-State - Combined N/S		787,314	879,100	941,139	1,074,949
Nassau/Suffolk RPB				842,533	952,262
Difference				98,606	122,687
Percent difference				11.7%	12.9%

This discrepancy derives largely from different assumptions regarding change in family size. Tri-State assumes more of a decrease in family size - actually average persons per dwelling unit than does Nassau/Suffolk Regional Planning Board.

3. Employment

Recommendations: Accept Tri-State employment projections except for 2000 estimate.

Discussion: Following is a comparison of employment projections:

	1974	1980	1985	2000
Tri-State Nassau	539,797	529,224	535,983	568,792
Suffolk		424,480	431,411	479,761
Combined		953,704	973,394	1,048,553
Nassau/Suffolk RPB		934,400	1,055,900	1,420,400
Difference		19,304	82,506	371,847
Percent difference		2%	8.5%	36%

Employment projections are more variable than population projections. The Nassau/Suffolk projection indicates a much higher rate of economic growth than does the Tri-State projection.

4. Land Use

Recommendation: Accept Tri-State existing land use (1974) and projections to 1980, 1985, and 2000.

Discussion: The pattern or distribution of dwelling units for 1974, 1980, 1985 and 2000 is considered reasonably accurate. However, the nonresidential pattern violates zoning and Coastal Zone Management policies. As stated in other discussions, this nonresidential uses are too widely spread and insensitive to zoning.

WESTCHESTER COUNTY - NEW YORK

1. Population

Recommendation: Adopt "208" projections.

Discussion: Following is a table which compares various agencies' population projections:

	1974	1980	1985	2000
County	890,000	890,000	890,000	900,000
Tri-State	901,690	846,010	866,568	897,427
"208"	880,000	880,000	880,000	
New York State		880,630	880,925	
Difference between Tri-State and "208"	21,690	33,990	13,432	
Percent difference	2.4%	4%	1.6%	

Tri-State predicts a decline in population while Westchester County and the Westchester "208" reports indicate the county as a whole is stable and will continue to show overall stability. On a regional basis shifts in population will occur with population declining in the older southern areas and growing in the northern towns.

2. Housing:

Recommendation: Adopt Westchester County estimates.

Discussion: The following table compares county, "208," and Tri-State housing projections:

	1974	1980	1985	2000
Tri-State	296,417	293,960	306,967	321,342
County	300,000	306,400	316,000	320,000
"208"	286,294			304,887 (1995)

According to county planners, there is an estimated loss of 1500 housing units per year, but they expect the increase in new housing units to more than offset the loss. With a declining family size (average persons per dwelling unit), an overall continued increase in dwelling units is predicted. Consequently, the "208" estimates appear to be low. The Tri-State figures indicate a decline from 1974 to 1980, which is not true for the county as a whole, according to county planners.

3. Employment

Recommendation: Adopt Westchester County estimates of employment

Discussion: The following table compares Tri-State and county estimates of employment:

	1974	1980	1985	2000
Tri-State	356,310	351,045	366,299	397,449
"208"	297,147			344,836
New York State Department of Labor and Industry	367,900			
Difference between Tri-State and 208	59,163			52,613
Percent difference	19%			15%

County planners feel that local estimates of employment are more reliable than Tri-State because the county is much more aware of local trends and policies.

4. Land Use

Recommendation: Accept Tri-State pattern for existing land use and projections to 1980, 1985, and 2000.

Discussion: County planners are very comfortable with the pattern of land use projected by Tri-State. The only problem with the projections concern the relatively indiscriminate way in which the nonresidential land use is allocated into areas zoned residential or generally into areas where commercial or industrial uses are unlikely to occur.

Recommendation: Accept Tri-State 1974, 1980, 1985 and 2000 year projections of residential and nonresidential land uses.

Discussion: The distribution of dwelling units conforms with Westchester County Planning Board's view of the future. The only major reservation expressed by the County concerned the spread of nonresidential land use into areas zoned for residential uses only. This seems largely a function of the nature of Tri-State model which allocates a certain amount of nonresidential along with residential.

GCA/TECHNOLOGY DIVISION

To : File (Tri-State)

Date: 7 March 1978

From : D.B. Ramsay

Subject : Visit to Ulster County Planning Board, Kingston, New York
23 February - Meetings with Dennis Doyle, Environmental Planner

1. Population - The New York State Economic Development Board as of January 1978 has issued new population projections which supersedes the 1976 figures. These projections are to be used as the official 208 numbers. Following is a chart which compares the 1976 and the most recent ones:

	1975	1980	1985	2000
1976 208*	156,400	171,100	185,900	222,600
1978 EDB	153,165	165,236	177,234	205,479
Difference	3,225	5,864	8,666	17,121
% Difference	2%	3.5%	4.8%	8%

2. Industrial/Commercial Development - The areas which are expected or could possibly develop industry were indicated on map 1" - 7000 feet. In some cases industry is already in the process of moving in and these areas are noted. In all cases the areas shown are taken from a report used by the Ulster County Planning Board to show potential developers and industries where the best sites are located with water and sewer already or potentially available.

Ulster County has many good advantages for industrial development. These are: tax advantages; available labor; stable economy; location - midway between NYC and Albany along Interstate 87 (New York Thruway). In view of these advantages and the expansion of the Stewart Airport just to the south of Orange County, industrial growth is likely to occur.

Commerical development, especially new shopping centers, however, is not likely to develop much in the next 25 years. There is now 25,000 square feet of commercial space vacant and there has been enough shopping center growth to accomodate existing and projected growth for some time.

The growth level or increase in business activity indicated by the OBERS projections appears high to county planners. One major potential industry, the "steamtown Railroad and Museum" complex which is seriously considering relocation from New Hampshire to Ulster County, New York, would provide an indirect benefit of 19 million dollars a year, 450,000 patrons during a 220 day season.

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*The 1976 data were used in the analysis for consistency with the rest of the study.

3. Land Use - Zoning Maps - There are no county land use or zoning maps available to check out the preliminary maps GCA produced. However, using the county base maps and looking at smaller maps the GCA maps appear to represent well the available data. It is furthermore justifiable to assure that growth in housing will primarily be adjacent to existing development in the towns indicated by the 208 reports.

APPENDIX B

NEW JERSEY COUNTY LEVEL FUEL ALLOCATIONS

This Appendix presents the results of the county fuel allocation procedure as specified in Volume 7 of the AQMA Guidelines. These results were used to allocate stationary source fuel use from state totals to the county level. As was noted in Section 3, the mobile source fuel use was derived from Tri-State estimates, so the data presented in this section were not used.

All units are those used in EPA's NEDS area source format. The distribution of dwelling units per building represents, respectively, the portion of buildings with 1, 2-4, 5-19, and greater than 20 dwelling units in the county. Area source fuel in some county categories was computed as less than zero. Rectification of these data was performed as described in Section 3. Use of bituminous coal and residual and distillate oil is reported only as "retail sales" and, hence, includes both residential and commercial/institutional use. These totals are noted on page B-2 by positioning them between the component columns.

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                    AREA EMISSION INVENTORY FOR NEW JERSEY

                       TOTAL POPULATION =   7332965.

              TOTAL COMMERCIAL/INSTITUTIONAL EMPLOYMENT =  1314888.

                   TOTAL INDUSTRIAL EMPLOYMENT =     784100.

                      AUTOMOBILE REGISTRATION  3735985.

                       TRUCK REGISTRATION   388000.

                      THERE WERE 4800. DEGREE DAYS IN 1975

                      THE AVERAGE HOUSING UNIT HAD 5.2 ROOMS

            THE NUMBER OF HOUSING UNITS HEATING WITH VARIOUS FUELS IS.

                             COAL     5239.
                              OIL  1667762.
                      NATURAL GAS  1010797.
                             WOOD      553.

                      RESIDENTIAL            COMMER/INST            INDUSTRIAL

       ANTHRACITE COAL        12911.
       BITUMINOUS COAL                  0.                                  4.
       DISTILLATE OIL               188223.                             10307.
       RESIDUAL OIL                      <--------   41551.                 73049.
       NATURAL GAS             1294.                 5215.                  5236.

                      RAILROADS      4662.

                 VESSELS     6098. DISTILLATE          12844. RESIDUAL

     GASOLINE ON HIGHWAY  3209825. (1000 GAL)          OFF HIGHWAY    32091. (1000 GAL)

     DIESEL ON HIGHWAY   230370. (1000 GAL)            OFF HIGHWAY     1575. (1000 GAL)

                      LIGHT VEHICLES  2730709. (1000 GAL)
                      HEAVY VEHICLES   546434. (1000 GAL)
                      TOTAL STATE GAS VMT 41727712. (1000 MI)

DWELLING UNITS PER BUILDING ARE DISTRIBUTED AS FOLLOWS:    0.540   0.265   0.109   0.084

                      RESIDENTIAL AREA FUEL

                    ANTH COAL      2716. (10 TONS)
                   BITUM COAL       302. (10 TONS)
               DISTILLATE OIL    143531. (10000 GAL)
                 RESIDUAL OIL      6950. (10000 GAL)
                  NATURAL GAS     12677. (10 MILLION CU FT)
                         WOOD        46. (100 TONS)
                         AREA EMISSION INVENTORY FOR BERGEN

                         TOTAL POPULATION =     879845.

               TOTAL COMMERCIAL/INSTITUTIONAL EMPLOYMENT =   186227.

                      TOTAL INDUSTRIAL EMPLOYMENT =     102477.

                        AUTOMOBILE REGISTRATION   466020.

                         TRUCK REGISTRATION      1000.

                      THERE WERE 4900. DEGREE DAYS IN 195

                      THE AVERAGE HOUSING UNIT HAD 5.5 ROOMS

             THE NUMBER OF HOUSING UNITS HEATING WITH VARIOUS FUELS IS,

                               COAL      239.
                                OIL   129119.
                        NATURAL GAS   157115.
                               WOOD        9.

DWELLING UNITS PER BUILDING ARE DISTRIBUTED AS FOLLOWS:    0.619   0.234   0.067   0.080

             COMMERCIAL/INSTITUTIONAL POINT SOURCE FUELS

                     ANTH COAL          0. (10 TONS)
                    BITUM COAL          0. (10 TONS)
                DISTILLATE OIL          0. (10000 GAL)
                  RESIDUAL OIL          0. (10000 GAL)
                   NATURAL GAS          0. (10 MILLION CU FT)
                          WOOD          0. (100 TONS)


                INDUSTRIAL POINT SOURCE FUELS

                     ANTH COAL          0. (10 TONS)
                    BITUM COAL          0. (10 TONS)
                DISTILLATE OIL         35. (10000 GAL)
                  RESIDUAL OIL       8238. (10000 GAL)
                   NATURAL GAS        159. (10 MILLION CU FT)
                          WOOD          0. (100 TONS)
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            AREA EMISSION INVENTORY FOR BERGEN
                      RESIDENTIAL AREA FUELS

                         ANTH COAL       136. (10 TONS)
                        BITUM COAL        15. (10 TONS)
                   DISTILLATE OIL      12220. (10000 GAL)
                     RESIDUAL OIL        550. (10000 GAL)
                      NATURAL GAS       2165. (10 MILLION CU FT)
                             WOOD          1. (100 TONS)


                COMMERCIAL/INSTITUTIONAL AREA FUELS

                         ANTH COAL      1401. (10 TONS)
                        BITUM COAL         0. (10 TONS)
                   DISTILLATE OIL       6330. (10000 GAL)
                     RESIDUAL OIL       4900. (10000 GAL)
                      NATURAL GAS        739. (10 MILLION CU FT)
                             WOOD          0. (100 TONS)


                      INDUSTRIAL AREA FUELS

                         ANTH COAL         0. (10 TONS)
                        BITUM COAL         1. (10 TONS)
                   DISTILLATE OIL       1380. (10000 GAL)
                     RESIDUAL OIL       1823. (10000 GAL)
                      NATURAL GAS        562. (10 MILLION CU FT)
                             WOOD          0. (100 TONS)

          RAILROAD DIESEL FUEL IS       559. (10000 GAL)

                               GASOLINE

LIGHT VEH   340624. (1000 GAL)    HEAVY VEH     1408. (1000 GAL)    OFF HIGH   3850. (1000 GAL)

                               DIESEL

          ON HIGH      594. (1000 GAL)    OFF HIGH      189. (1000 GAL)

                    TOTAL VMT  4647337. (1000 MI)


               SOLVENT PURCHASED   7919. (TONS)
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                    AREA EMISSION INVENTORY FOR ESSEX

                      TOTAL POPULATION =     882487.

             TOTAL COMMERCIAL/INSTITUTIONAL EMPLOYMENT =   203010.

                   TOTAL INDUSTRIAL EMPLOYMENT =       90080.

                     AUTOMOBILE REGISTRATION    474660.

                       TRUCK REGISTRATION      1000.

                  THERE WERE 4655. DEGREE DAYS IN 195

                  THE AVERAGE HOUSING UNIT HAD 4.8 ROOMS

        THE NUMBER OF HOUSING UNITS HEATING WITH VARIOUS FUELS IS.

                            COAL     1015.
                             OIL   175617.
                     NATURAL GAS   121974.
                            WOOD        0.

DWELLING UNITS PER BUILDING ARE D[illegible]UTED AS FOLLOWS:    0.315   0.336   0.157   0.192

              COMMERCIAL/INSTITUTIONAL POINT SOURCE FUELS

                   ANTH COAL          0. (10 TONS)
                  BITUM COAL          0. (10 TONS)
             DISTILLATE OIL          0. (10000 GAL)
               RESIDUAL OIL          0. (10000 GAL)
                NATURAL GAS          0. (10 MILLION CU FT)
                       WOOD          0. (100 TONS)


              INDUSTRIAL POINT SOURCE FUELS

                   ANTH COAL          0. (10 TONS)
                  BITUM COAL          0. (10 TONS)
             DISTILLATE OIL        302. (10000 GAL)
               RESIDUAL OIL       5912. (10000 GAL)
                NATURAL GAS        125. (10 MILLION CU FT)
                       WOOD          0. (100 TONS)
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AREA EMISSION INVENTORY FOR ESSEX
         RESIDENTIAL AREA FUELS

              ANTH COAL      437. (10 TONS)
             BITUM COAL       49. (10 TONS)
        DISTILLATE OIL     11603. (10000 GAL)
          RESIDUAL OIL      1505. (10000 GAL)
           NATURAL GAS      1258. (10 MILLION CU FT)
                  WOOD         0. (100 TONS)


    COMMERCIAL/INSTITUTIONAL AREA FUELS

              ANTH COAL     1527. (10 TONS)
             BITUM COAL        0. (10 TONS)
        DISTILLATE OIL      6900. (10000 GAL)
          RESIDUAL OIL      5342. (10000 GAL)
           NATURAL GAS       805. (10 MILLION CU FT)
                  WOOD         0. (100 TONS)


          INDUSTRIAL AREA FUELS

              ANTH COAL        0. (10 TONS)
             BITUM COAL        0. (10 TONS)
        DISTILLATE OIL       946. (10000 GAL)
          RESIDUAL OIL      2931. (10000 GAL)
           NATURAL GAS       509. (10 MILLION CU FT)
                  WOOD         0. (100 TONS)

    RAILROAD DIESEL FUEL IS     561. (10000 GAL)

                          GASOLINE

LIGHT VEH   346939. (1000 GAL)    HEAVY VEH     1408. (1000 GAL)    OFF HIGH    3862. (1000 GAL)

                          DIESEL

          ON HIGH     594. (1000 GAL)    OFF HIGH     190. (1000 GAL)
                 TOTAL VMT  4733222. (1000 MI)


               SOLVENT PURCHASED   7942. (TONS)
```

```
                    AREA EMISSION INVENTORY FOR HUDSON

                       TOTAL POPULATION =    577519.

            TOTAL COMMERCIAL/INSTITUTIONAL EMPLOYMENT =   109311.

                  TOTAL INDUSTRIAL EMPLOYMENT =     74001.

                    AUTOMOBILE REGISTRATION   254010.

                     TRUCK REGISTRATION     1000.

                   THERE WERE 4581. DEGREE DAYS IN 195

                   THE AVERAGE HOUSING UNIT HAD 4.3 ROOMS

          THE NUMBER OF HOUSING UNITS HEATING WITH VARIOUS FUELS IS.

                                COAL      479.
                                 OIL   111876.
                         NATURAL GAS    94836.
                                WOOD       71.

DWELLING UNITS PER BUILDING ARE DISTRIBUTED AS FOLLOWS:    0.131   0.429   0.276   0.162

          COMMERCIAL/INSTITUTIONAL POINT SOURCE FUELS

                      ANTH COAL          0. (10 TONS)
                     BITUM COAL          0. (10 TONS)
                DISTILLATE OIL           0. (10000 GAL)
                  RESIDUAL OIL           0. (10000 GAL)
                   NATURAL GAS           0. (10 MILLION CU FT)
                          WOOD           0. (100 TONS)


            INDUSTRIAL POINT SOURCE FUELS

                      ANTH COAL          0. (10 TONS)
                     BITUM COAL          0. (10 TONS)
                DISTILLATE OIL          86. (10000 GAL)
                  RESIDUAL OIL        5124. (10000 GAL)
                   NATURAL GAS          26. (10 MILLION CU FT)
                          WOOD           0. (100 TONS)
                    AREA EMISSION INVENTORY FOR HUDSON
                          RESIDENTIAL AREA FUELS

                           ANTH COAL       174. (10 TONS)
                          BITUM COAL        19. (10 TONS)
                     DISTILLATE OIL      6342. (10000 GAL)
                       RESIDUAL OIL       706. (10000 GAL)
                        NATURAL GAS       817. (10 MILLION CU FT)
                               WOOD         5. (100 TONS)


                  COMMERCIAL/INSTITUTIONAL AREA FUELS

                           ANTH COAL       822. (10 TONS)
                          BITUM COAL         0. (10 TONS)
                     DISTILLATE OIL      3715. (10000 GAL)
                       RESIDUAL OIL      2876. (10000 GAL)
                        NATURAL GAS       434. (10 MILLION CU FT)
                               WOOD         0. (100 TONS)


                        INDUSTRIAL AREA FUELS

                           ANTH COAL         0. (10 TONS)
                          BITUM COAL         0. (10 TONS)
                     DISTILLATE OIL       939. (10000 GAL)
                       RESIDUAL OIL      2141. (10000 GAL)
                        NATURAL GAS       495. (10 MILLION CU FT)
                               WOOD         0. (100 TONS)

                RAILROAD DIESEL FUEL IS      367. (10000 GAL)

                                GASOLINE

LIGHT VEH    185661. (1000 GAL)     HEAVY VEH      1408. (1000 GAL)     OFF HIGH     2527. (1000 GAL)

                                 DIESEL

                ON HIGH      594. (1000 GAL)     OFF HIGH      124. (1000 GAL)

                        TOTAL VMT  2539849. (1000 MI)


                  SOLVENT PURCHASED   5198. (TONS)
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                    AREA EMISSION INVENTORY FOR MIDDLESEX

                      TOTAL POPULATION =    318379.

              TOTAL COMMERCIAL/INSTITUTIONAL EMPLOYMENT =    99798.

                   TOTAL INDUSTRIAL EMPLOYMENT =      79000.

                     AUTOMOBILE REGISTRATION   230710.

                      TRUCK REGISTRATION     1000.


                      THERE WERE 5000. DEGREE DAYS IN 1975

                      THE AVERAGE HOUSING UNIT HAD 5.4 ROOMS

            THE NUMBER OF HOUSING UNITS HEATING WITH VARIOUS FUELS IS.

                             COAL       234.
                              OIL     80619.
                      NATURAL GAS     87090.
                             WOOD        16.

DWELLING UNITS PER BUILDING ARE DISTRIBUTED AS FOLLOWS:     0.667   0.183   0.087   0.062

            COMMERCIAL/INSTITUTIONAL POINT SOURCE FUELS

                    ANTH COAL          0. (10 TONS)
                   BITUM COAL          0. (10 TONS)
              DISTILLATE OIL           0. (10000 GAL)
                RESIDUAL OIL           0. (10000 GAL)
                 NATURAL GAS           0. (10 MILLION CU FT)
                        WOOD           0. (100 TONS)


              INDUSTRIAL POINT SOURCE FUELS

                    ANTH COAL          0. (10 TONS)
                   BITUM COAL          0. (10 TONS)
              DISTILLATE OIL         960. (10000 GAL)
                RESIDUAL OIL       11010. (10000 GAL)
                 NATURAL GAS         112. (10 MILLION CU FT)
                        WOOD           0. (100 TONS)
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      AREA EMISSION INVENTORY FOR MIDDLESEX
              RESIDENTIAL AREA FUELS

                    ANTH COAL       132. (10 TONS)
                   BITUM COAL        15. (10 TONS)
              DISTILLATE OIL       7685. (10000 GAL)
                RESIDUAL OIL        263. (10000 GAL)
                 NATURAL GAS       1196. (10 MILLION CU FT)
                        WOOD          1. (100 TONS)


            COMMERCIAL/INSTITUTIONAL AREA FUELS

                    ANTH COAL       751. (10 TONS)
                   BITUM COAL         0. (10 TONS)
              DISTILLATE OIL       3392. (10000 GAL)
                RESIDUAL OIL       2626. (10000 GAL)
                 NATURAL GAS        396. (10 MILLION CU FT)
                        WOOD          0. (100 TONS)


                 INDUSTRIAL AREA FUELS

                    ANTH COAL         0. (10 TONS)
                   BITUM COAL         0. (10 TONS)
              DISTILLATE OIL        135. (10000 GAL)
                RESIDUAL OIL      -3255. (10000 GAL)
                 NATURAL GAS        444. (10 MILLION CU FT)
                        WOOD          0. (100 TONS)

      RAILROAD DIESEL FUEL IS       202. (10000 GAL)

                              GASOLINE

LIGHT VEH    168631. (1000 GAL)     HEAVY VEH      1408. (1000 GAL)     OFF HIGH     1393. (1000 GAL)

                               DIESEL

             ON HIGH      594. (1000 GAL)     OFF HIGH       68. (1000 GAL)

                      TOTAL VMT  2308235. (1000 MI)


               SOLVENT PURCHASED   1273. (TONS)
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                         AREA EMISSION INVENTORY FOR MONMOUTH

                             TOTAL POPULATION =    492030.

                   TOTAL COMMERCIAL/INSTITUTIONAL EMPLOYMENT =    67298.

                         TOTAL INDUSTRIAL EMPLOYMENT =      24632.

                            AUTOMOBILE REGISTRATION    199500.

                              TRUCK REGISTRATION     1000.

                            THERE WERE 5100. DEGREE DAYS IN 1975

                            THE AVERAGE HOUSING UNIT HAD 5.6 ROOMS

                    THE NUMBER OF HOUSING UNITS HEATING WITH VARIOUS FUELS IS.

                                   COAL      138.
                                    OIL    60703.
                            NATURAL GAS    72548.
                                   WOOD       42.

DWELLING UNITS PER BUILDING ARE DISTRIBUTED AS FOLLOWS:     0.754    0.108    0.077    0.060

                    COMMERCIAL/INSTITUTIONAL POINT SOURCE FUELS

                           ANTH COAL           0. (10 TONS)
                          BITUM COAL           0. (10 TONS)
                      DISTILLATE OIL           0. (10000 GAL)
                        RESIDUAL OIL           0. (10000 GAL)
                         NATURAL GAS           0. (10 MILLION CU FT)
                                WOOD           0. (100 TONS)


                       INDUSTRIAL POINT SOURCE FUELS

                           ANTH COAL           0. (10 TONS)
                          BITUM COAL           0. (10 TONS)
                      DISTILLATE OIL           0. (10000 GAL)
                        RESIDUAL OIL        1548. (10000 GAL)
                         NATURAL GAS           0. (10 MILLION CU FT)
                                WOOD           0. (100 TONS)
```

```
          AREA EMISSION INVENTORY FOR MONMOUTH
                    RESIDENTIAL AREA FUELS

                    ANTH COAL        83. (10 TONS)
                   BITUM COAL         9. (10 TONS)
              DISTILLATE OIL       6155. (10000 GAL)
                RESIDUAL OIL        201. (10000 GAL)
                 NATURAL GAS       1058. (10 MILLION CU FT)
                        WOOD          4. (100 TONS)


              COMMERCIAL/INSTITUTIONAL AREA FUELS

                   ANTH COAL        506. (10 TONS)
                  BITUM COAL          0. (10 TONS)
              DISTILLATE OIL       2287. (10000 GAL)
                RESIDUAL OIL       1771. (10000 GAL)
                 NATURAL GAS        267. (10 MILLION CU FT)
                        WOOD          0. (100 TONS)


                  INDUSTRIAL AREA FUELS

                   ANTH COAL          0. (10 TONS)
                  BITUM COAL          0. (10 TONS)
              DISTILLATE OIL        341. (10000 GAL)
                RESIDUAL OIL        870. (10000 GAL)
                 NATURAL GAS        173. (10 MILLION CU FT)
                        WOOD          0. (100 TONS)

          RAILROAD DIESEL FUEL IS      313. (10000 GAL)

                               GASOLINE

LIGHT VEH    145819. (1000 GAL)     HEAVY VEH      1408. (1000 GAL)     OFF HIGH     2153. (1000 GAL)

                                DIESEL

          ON HIGH       594. (1000 GAL)     OFF HIGH       106. (1000 GAL)

                    TOTAL VMT  1997991. (1000 MI)


                SOLVENT PURCHASED   1968. (TONS)
```

```
                         AREA EMISSION INVENTORY FOR MORRIS

                         TOTAL POPULATION =     393624.

                 TOTAL COMMERCIAL/INSTITUTIONAL EMPLOYMENT =   107924.

                       TOTAL INDUSTRIAL EMPLOYMENT =      45589.

                         AUTOMOBILE REGISTRATION   159180.

                          TRUCK REGISTRATION      1000.

                         THERE WERE 5585. DEGREE DAYS IN 1975

                         THE AVERAGE HOUSING UNIT HAD 5.9 ROOMS

                THE NUMBER OF HOUSING UNITS HEATING WITH VARIOUS FUELS IS,

                                   COAL      206.
                                    OIL    66702.
                            NATURAL GAS    40140.
                                   WOOD       16.

DWELLING UNITS PER BUILDING ARE DISTRIBUTED AS FOLLOWS:     0.766   0.102   0.067   0.065

                COMMERCIAL/INSTITUTIONAL POINT SOURCE FUELS

                           ANTH COAL          0. (10 TONS)
                          BITUM COAL          0. (10 TONS)
                     DISTILLATE OIL          0. (10000 GAL)
                       RESIDUAL OIL          0. (10000 GAL)
                        NATURAL GAS          0. (10 MILLION CU FT)
                               WOOD          0. (100 TONS)


                    INDUSTRIAL POINT SOURCE FUELS

                           ANTH COAL          0. (10 TONS)
                          BITUM COAL          0. (10 TONS)
                     DISTILLATE OIL        809. (10000 GAL)
                       RESIDUAL OIL       3398. (10000 GAL)
                        NATURAL GAS         19. (10 MILLION CU FT)
                               WOOD          0. (100 TONS)
```

```
AREA EMISSION INVENTORY FOR MORRIS
        RESIDENTIAL AREA FUELS

         ANTH COAL         136. (10 TONS)
        BITUM COAL          15. (10 TONS)
   DISTILLATE OIL         7422. (10000 GAL)
     RESIDUAL OIL          263. (10000 GAL)
      NATURAL GAS          645. (10 MILLION CU FT)
             WOOD            2. (100 TONS)


    COMMERCIAL/INSTITUTIONAL AREA FUELS

         ANTH COAL         812. (10 TONS)
        BITUM COAL           0. (10 TONS)
   DISTILLATE OIL         3668. (10000 GAL)
     RESIDUAL OIL         2840. (10000 GAL)
      NATURAL GAS          428. (10 MILLION CU FT)
             WOOD            0. (100 TONS)


        INDUSTRIAL AREA FUELS

         ANTH COAL           0. (10 TONS)
        BITUM COAL           0. (10 TONS)
   DISTILLATE OIL         -177. (10000 GAL)
     RESIDUAL OIL         1078. (10000 GAL)
      NATURAL GAS          302. (10 MILLION CU FT)
             WOOD            0. (100 TONS)

RAILROAD DIESEL FUEL IS      250. (10000 GAL)

                          GASOLINE

LIGHT VEH    116348. (1000 GAL)    HEAVY VEH      1408. (1000 GAL)     OFF HIGH     1723. (1000 GAL)

                           DIESEL

          ON HIGH      594. (1000 GAL)    OFF HIGH       85. (1000 GAL)

                  TOTAL VMT  1597189. (1000 MI)


            SOLVENT PURCHASED   1574. (TONS)
```

```
                 AREA EMISSION INVENTORY FOR PASSIAC

                  TOTAL POPULATION =     452462.

        TOTAL COMMERCIAL/INSTITUTIONAL EMPLOYMENT =     83662.

              TOTAL INDUSTRIAL EMPLOYMENT =      61605.

                AUTOMOBILE REGISTRATION    226190.

                 TRUCK REGISTRATION      1000.

                  THERE WERE 5020. DEGREE DAYS IN 1975

                  THE AVERAGE HOUSING UNIT HAD 4.9 ROOMS

        THE NUMBER OF HOUSING UNITS HEATING WITH VARIOUS FUELS IS,

                          COAL      453.
                           OIL    63426.
                   NATURAL GAS    84772.
                          WOOD       13.

DWELLING UNITS PER BUILDING ARE DISTRIBUTED AS FOLLOWS:    0.422   0.379   0.118   0.081

           COMMERCIAL/INSTITUTIONAL POINT SOURCE FUELS

                  ANTH COAL          0. (10 TONS)
                 BITUM COAL          0. (10 TONS)
            DISTILLATE OIL           0. (10000 GAL)
              RESIDUAL OIL           0. (10000 GAL)
               NATURAL GAS           0. (10 MILLION CU FT)
                      WOOD           0. (100 TONS)


             INDUSTRIAL POINT SOURCE FUELS

                  ANTH COAL          0. (10 TONS)
                 BITUM COAL          0. (10 TONS)
            DISTILLATE OIL         508. (10000 GAL)
              RESIDUAL OIL        2937. (10000 GAL)
               NATURAL GAS           1. (10 MILLION CU FT)
                      WOOD           0. (100 TONS)
```

```
AREA EMISSION INVENTORY FOR PASSIAC
           RESIDENTIAL AREA FUELS

             ANTH COAL       222. (10 TONS)
            BITUM COAL        25. (10 TONS)
       DISTILLATE OIL      5160. (10000 GAL)
         RESIDUAL OIL       243. (10000 GAL)
          NATURAL GAS      1004. (10 MILLION CU FT)
                 WOOD         1. (100 TONS)


      COMMERCIAL/INSTITUTIONAL AREA FUELS

             ANTH COAL       629. (10 TCNS)
            BITUM COAL         0. (10 TONS)
       DISTILLATE OIL      2844. (10000 GAL)
         RESIDUAL OIL      2202. (10000 GAL)
          NATURAL GAS       332. (10 MILLION CU FT)
                 WOOD         0. (100 TONS)


           INDUSTRIAL AREA FUELS

             ANTH COAL         0. (10 TONS)
            BITUM COAL         0. (10 TONS)
       DISTILLATE OIL       346. (10000 GAL)
         RESIDUAL OIL      3111. (10000 GAL)
          NATURAL GAS       432. (10 MILLION CU FT)
                 WOOD         0. (100 TONS)

RAILROAD DIESEL FUEL IS      288. (10000 GAL)

                        GASOLINE

LIGHT VEH    165327. (1000 GAL)     HEAVY VEH      1408. (1000 GAL)    OFF HIGH     1980. (1000 GAL)

                         DIESEL

ON HIGH      594. (1000 GAL)     OFF HIGH       97. (1000 GAL)

           TOTAL VMT  2263304. (1000 MI)


      SOLVENT PURCHASED   1810. (TONS)
```

```
                AREA EMISSION INVENTORY FOR SOMERSET

                  TOTAL POPULATION =    202091.

        TOTAL COMMERCIAL/INSTITUTIONAL EMPLOYMENT =   33353.

               TOTAL INDUSTRIAL EMPLOYMENT =     28373.

                 AUTOMOBILE REGISTRATION    74150.

                  TRUCK REGISTRATION     1000.


                THERE WERE 5511. DEGREE DAYS IN 1975

                THE AVERAGE HOUSING UNIT HAD 5.9 ROOMS

     THE NUMBER OF HOUSING UNITS HEATING WITH VARIOUS FUELS IS.

                         COAL      106.
                          OIL    28172.
                  NATURAL GAS    29103.
                         WOOD        0.

DWELLING UNITS PER BUILDING ARE DISTRIBUTED AS FOLLOWS:    0.739   0.170   0.058   0.033

         COMMERCIAL/INSTITUTIONAL POINT SOURCE FUELS

                 ANTH COAL         0. (10 TONS)
                BITUM COAL         0. (10 TONS)
           DISTILLATE OIL          0. (10000 GAL)
             RESIDUAL OIL          0. (10000 GAL)
              NATURAL GAS          0. (10 MILLION CU FT)
                     WOOD          0. (100 TONS)


           INDUSTRIAL POINT SOURCE FUELS

                 ANTH COAL         0. (10 TONS)
                BITUM COAL         0. (10 TONS)
           DISTILLATE OIL          1. (10000 GAL)
             RESIDUAL OIL       1082. (10000 GAL)
              NATURAL GAS         18. (10 MILLION CU FT)
                     WOOD          0. (100 TONS)
```

```
          AREA EMISSION INVENTORY FOR SOMERSET
                RESIDENTIAL AREA FUELS

                   ANTH COAL        71. (10 TONS)
                  BITUM COAL         8. (10 TONS)
             DISTILLATE OIL       3212. (10000 GAL)
               RESIDUAL OIL         56. (10000 GAL)
                NATURAL GAS        471. (10 MILLION CU FT)
                       WOOD          0. (100 TONS)


            COMMERCIAL/INSTITUTIONAL AREA FUELS

                   ANTH COAL       251. (10 TONS)
                  BITUM COAL         0. (10 TONS)
             DISTILLATE OIL       1134. (10000 GAL)
               RESIDUAL OIL        878. (10000 GAL)
                NATURAL GAS        132. (10 MILLION CU FT)
                       WOOD          0. (100 TONS)


                 INDUSTRIAL AREA FUELS

                   ANTH COAL         0. (10 TONS)
                  BITUM COAL         0. (10 TONS)
             DISTILLATE OIL        392. (10000 GAL)
               RESIDUAL OIL       1704. (10000 GAL)
                NATURAL GAS        182. (10 MILLION CU FT)
                       WOOD          0. (100 TONS)

          RAILROAD DIESEL FUEL IS      128. (10000 GAL)

                          GASOLINE

LIGHT VEH     54198. (1000 GAL)     HEAVY VEH       1408. (1000 GAL)     OFF HIGH      884. (1000 GAL)

                           DIESEL

          ON HIGH      598. (1000 GAL)     OFF HIGH       43. (1000 GAL)

                 TOTAL VMT   751948. (1000 MI)


             SOLVENT PURCHASED    808. (TONS)
```

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                    AREA EMISSION INVENTORY FOR UNION

                      TOTAL POPULATION =     520823.

           TOTAL COMMERCIAL/INSTITUTIONAL EMPLOYMENT =   116714.

                    TOTAL INDUSTRIAL EMPLOYMENT =      88167.

                        AUTOMOBILE REGISTRATION   308260.

                         TRUCK REGISTRATION      1000.

                      THERE WERE 4900. DEGREE DAYS IN 1975

                      THE AVERAGE HOUSING UNIT HAD 5.5 ROOMS

              THE NUMBER OF HOUSING UNITS HEATING WITH VARIOUS FUELS IS,

                             COAL      560.
                              OIL    99482.
                      NATURAL GAS    71665.
                             WOOD        0.

DWELLING UNITS PER BUILDING ARE DISTRIBUTED AS FOLLOWS:     0.572    0.260    0.075    0.093

              COMMERCIAL/INSTITUTIONAL POINT SOURCE FUELS

                      ANTH COAL          0. (10 TONS)
                     BITUM COAL          0. (10 TONS)
                DISTILLATE OIL           0. (10000 GAL)
                  RESIDUAL OIL           0. (10000 GAL)
                   NATURAL GAS           0. (10 MILLION CU FT)
                          WOOD           0. (100 TONS)


                INDUSTRIAL POINT SOURCE FUELS

                      ANTH COAL          0. (10 TONS)
                     BITUM COAL          0. (10 TONS)
                DISTILLATE OIL         764. (10000 GAL)
                  RESIDUAL OIL     ~~10218.~~ (10000 GAL)          5859
                   NATURAL GAS         430. (10 MILLION CU FT)
                          WOOD           0. (100 TONS)
```

```
AREA EMISSION INVENTORY FOR UNION
        RESIDENTIAL AREA FUELS

        ANTH COAL        314. (10 TONS)
       BITUM COAL         55. (10 TONS)
  DISTILLATE OIL        9225. (10000 GAL)
    RESIDUAL OIL         493. (10000 GAL)
     NATURAL GAS         974. (10 MILLION CU FT)
            WOOD           0. (100 TONS)


     COMMERCIAL/INSTITUTIONAL AREA FUELS

        ANTH COAL        878. (10 TONS)
       BITUM COAL          0. (10 TONS)
  DISTILLATE OIL        3967. (10000 GAL)
    RESIDUAL OIL        3071. (10000 GAL)
     NATURAL GAS         465. (10 MILLION CU FT)
            WOOD           0. (100 TONS)


          INDUSTRIAL AREA FUELS

        ANTH COAL          0. (10 TONS)
       BITUM COAL          0. (10 TONS)
  DISTILLATE OIL         458. (10000 GAL)
    RESIDUAL OIL     ~~-1502~~. (10000 GAL)   -1203
     NATURAL GAS         190. (10 MILLION CU FT)
            WOOD           0. (100 TONS)

RAILROAD DIESEL FUEL IS       331. (10000 GAL)

                          GASOLINE

LIGHT VEH    225314. (1000 GAL)     HEAVY VEH      1408. (1000 GAL)     OFF HIGH     2279. (1000 GAL)

                          DIESEL

          ON HIGH      594. (1000 GAL)     OFF HIGH      112. (1000 GAL)

                   TOTAL VMT  3079122. (1000 MI)


               SOLVENT PURCHASED   4687. (TONS)
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APPENDIX C

SUPPORT MATERIAL FOR NEW JERSEY AQMA SUBMITTAL

This report documents the techniques and level of detail used in performing the AQMA Analysis. Details on development of the inventory and subsequent modeling efforts are provided in Section 3 of this report or, when Tri-State data and techniques were accepted, in EPA-902/4-77-006.

This Appendix presents the specific data summaries required under Section 51.51, Subpart D of 40 CFR 51. Included are Tables 7.1 and 7.2, Baseline and Projected Emissions for each county and projection year; a map portraying the grid system for each county; and the emissions associated with each grid (equivalent to Table 4-2). The grid maps have been created so that each grid is printed at its proper location and is represented by a digit specifying its side length. Each digit on the map represents 1 square kilometer. Location of a specific grid can be performed by determining its distance from the apparent origin (southwest corner). The UTM coordinates of this origin are printed as XMIN and YMIN in the map heading.

Concentration isopleths have been presented in Section 6 of this report.

Table 7.2
County Base Year Emissions Report

COUNTY Bergen
YEAR 1975

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		21	4			
		DISTILLATE OIL		459	1760			
		RESIDUAL OIL		65	31			
		NATURAL GAS		108	6			
		WOOD						
		TOTAL		653	1801			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL		200	824			
		LIGNITE						
		RESIDUAL OIL		3	302			
		DISTILLATE OIL						
		NATURAL GAS		2				
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL		205	1126			
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	180	370			
			POINT	947	2587			
		DISTILLATE OIL	AREA	42	199			
			POINT	3	5			
		NATURAL GAS	AREA	28	2			
			POINT	1	1			
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	250	571			
			POINT	951	2593			

Table 7. 1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	479	993			
			POINT					
		DISTILLATE OIL	AREA	189	912			
			POINT					
		NATURAL GAS	AREA	37	2			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	705	1907			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	1608	4279			
			POINT	1156	3219			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL		1	19			
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL		1	19			
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION			1	19			
TOTAL FUEL COMBUSTION		AREA		1608	4229			
		POINT		1157	3238			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING			58	56			
	FOOD/AGRICULTURE							
	PRIMARY METAL							
	SECONDARY METALS							
	MINERAL PRODUCTS							
	PETROLEUM INDUSTRY							
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			58	56			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	2686	672			
			HEAVY DUTY	163	51			
			OFF HIGHWAY	1				
			TOTAL	2850	723			
		DIESEL	HEAVY DUTY	176	308			
			OFF HIGHWAY	274	283			
			RAIL	38	88			
			TOTAL	488	679			
	AIRCRAFT	MILITARY						
		CIVIL						
		COMMERCIAL						
		TOTAL		8	8			
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL			79			
		RESIDUAL OIL		4	17			
		GASOLINE			2			
		TOTAL		4	98			
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			3350	1508			

Table 7.2
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	29				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		4987	5787			
	POINT		1215	3794			

Table 7.1
Continued

Table 72
County Base Year Emissions Report

COUNTY Essex
YEAR 1975

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		27	6			
		DISTILLATE OIL		435	1671			
		RESIDUAL OIL		172	359			
		NATURAL GAS		63	4			
		WOOD						
		TOTAL		697	2040			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL		3	2			
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL		3	2			
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	287	594			
			POINT	733	2143			
		DISTILLATE OIL	AREA	27	136			
			POINT	23	107			
		NATURAL GAS	AREA	25	2			
			POINT	6	6			
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	339	732			
			POINT	762	2256			

Table 7.1

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	521	1083			
			POINT					
		DISTILLATE OIL	AREA	207	994			
			POINT					
		NATURAL GAS	AREA	41	2			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	769	2079			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	1805	4851			
			POINT	765	2258			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION		AREA		1805	4851			
		POINT		765	2258			

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING				1955			
	FOOD/AGRICULTURE							
	PRIMARY METAL			178	97			
	SECONDARY METALS							
	MINERAL PRODUCTS			1914				
	PETROLEUM INDUSTRY							
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			2092	2052			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	2113	529			
			HEAVY DUTY	148	45			
			OFF HIGHWAY					
			TOTAL	2261	579			
		DIESEL	HEAVY DUTY	178	311			
			OFF HIGHWAY	209	215			
			RAIL	29	66			
			TOTAL	416	592			
	AIRCRAFT	MILITARY						
		CIVIL						
		COMMERCIAL						
		TOTAL		76	120			
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL			69			
		RESIDUAL OIL		8	36			
		GASOLINE			1			
		TOTAL		8	106			
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			2761	1352			

Table 7.1
Continued

Table 7.1
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	46				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		4612	6293			
	POINT		2857	9310			

COUNTY Hudson
YEAR 1975

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		11	2			
		DISTILLATE OIL		237	913			
		RESIDUAL OIL		80	168			
		NATURAL GAS		41	2			
		WOOD		3				
		TOTAL		372	1085			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL		280	1884			
		LIGNITE						
		RESIDUAL OIL		157	455			
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL		437	2339			
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	211	434			
			POINT	1870	3206			
		DISTILLATE OIL	AREA	27	135			
			POINT	6	6			
		NATURAL GAS	AREA	25	1			
			POINT					
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	263	570			
			POINT	1876	3212			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	280	583			
			POINT					
		DISTILLATE OIL	AREA	111	535			
			POINT					
		NATURAL GAS	AREA	22	1			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	413	1119			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	1048	2774			
			POINT	2313	5551			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION			AREA	1098	2774			
			POINT	2313	5551			

Table 7.1
Continued

Table 7.**2**
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING			271	153			
	FOOD/AGRICULTURE			80				
	PRIMARY METAL							
	SECONDARY METALS							
	MINERAL PRODUCTS			141	324			
	PETROLEUM INDUSTRY			150	1			
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			642	478			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	875	219			
			HEAVY DUTY	94	26			
			OFF HIGHWAY					
			TOTAL	969	245			
		DIESEL	HEAVY DUTY	150	262			
			OFF HIGHWAY	167	172			
			RAIL	35	80			
			TOTAL	352	514			
	AIRCRAFT	MILITARY						
		CIVIL						
		COMMERCIAL						
		TOTAL						
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL			186			
		RESIDUAL OIL		15	69			
		GASOLINE			4			
		TOTAL		15	259			
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			1336	1018			

Table 7.1
Continued

Table 7.2
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	96				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		2480	3792			
	POINT		2955	6029			

COUNTY Middlesex
YEAR 1975

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		9	2			
		DISTILLATE OIL		288	1107			
		RESIDUAL OIL		31	63			
		NATURAL GAS		60	4			
		WOOD		1				
		TOTAL		389	1176			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL		121	975			
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL		121	975			
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	119	299			
			POINT	1762	4812			
		DISTILLATE OIL	AREA	3	19			
			POINT	72	136			
		NATURAL GAS	AREA	22	1			
			POINT	6	5			
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	144	269			
			POINT	1840	4953			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	303	628			
			POINT					
		DISTILLATE OIL	AREA	102	488			
			POINT					
		NATURAL GAS	AREA	20	1			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	425	1117			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	958	2562			
			POINT	1961	5928			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL		22	15			
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION			22	15			
TOTAL FUEL COMBUSTION		AREA		958	2562			
		POINT		1983	5943			

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING			796	7474			
	FOOD/AGRICULTURE							
	PRIMARY METAL			1150	68			
	SECONDARY METALS							
	MINERAL PRODUCTS			66	337			
	PETROLEUM INDUSTRY			1100	5374			
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			3112	13253			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	2088	521			
			HEAVY DUTY	113	34			
			OFF HIGHWAY	1	1			
			TOTAL	2202	556			
		DIESEL	HEAVY DUTY	148	260			
			OFF HIGHWAY	117	120			
			RAIL	70	161			
			TOTAL	335	541			
	AIRCRAFT	MILITARY						
		CIVIL						
		COMMERCIAL						
		TOTAL						
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL			158			
		RESIDUAL OIL		3	16			
		GASOLINE			1			
		TOTAL		3	175			
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			2540	1272			

Table 7.2
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	13	0			
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		3511	3834			
	POINT		5095	19196			

Table 7.1
Continued

COUNTY Monmouth
YEAR 1975

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		5	1			
		DISTILLATE OIL		231	886			
		RESIDUAL OIL		23	48			
		NATURAL GAS		53	3			
		WOOD		2				
		TOTAL		314	938			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL						
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL						
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	84	176			
			POINT	178	608			
		DISTILLATE OIL	AREA	9	49			
			POINT					
		NATURAL GAS	AREA	9	1			
			POINT					
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	102	226			
			POINT	178	608			

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	172	359			
			POINT					
		DISTILLATE OIL	AREA	69	329			
			POINT					
		NATURAL GAS	AREA	13	1			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	254	689			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	670	1843			
			POINT	178	608			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION		AREA		670	1843			
		POINT		178	608			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING							
	FOOD/AGRICULTURE							
	PRIMARY METAL							
	SECONDARY METALS							
	MINERAL PRODUCTS			362				
	PETROLEUM INDUSTRY							
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			362				
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	1518	380			
			HEAVY DUTY	72	25			
			OFF HIGHWAY	2	1			
			TOTAL	1592	406			
		DIESEL	HEAVY DUTY	49	86			
			OFF HIGHWAY	113	114			
			RAIL	35	80			
			TOTAL	197	280			
	AIRCRAFT	MILITARY						
		CIVIL						
		COMMERCIAL						
		TOTAL		3	3			
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL			118			
		RESIDUAL OIL		7	34			
		GASOLINE			3			
		TOTAL		7	155			
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			1799	844			

Table 7.1
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	16				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		2485	2687			
	POINT		540	608			

Table 7.2
County Base Year Emissions Report

COUNTY Morris
YEAR 1975

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		9	2			
		DISTILLATE OIL		279	1069			
		RESIDUAL OIL		31	63			
		NATURAL GAS		32	2			
		WOOD		1				
		TOTAL		352	1136			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL						
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL						
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	103	218			
			POINT	391	999			
		DISTILLATE OIL	AREA	9	47			
			POINT	61	57			
		NATURAL GAS	AREA	15	1			
			POINT	1	1			
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	127	266			
			POINT	459	1057			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	276	526			
			POINT					
		DISTILLATE OIL	AREA	96	456			
			POINT					
		NATURAL GAS	AREA	22	1			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	354	1033			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	873	2435			
			POINT	459	1057			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION		AREA		873	2435			
		POINT		459	1057			

Table 7.1
Continued

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING							
	FOOD/AGRICULTURE							
	PRIMARY METAL							
	SECONDARY METALS							
	MINERAL PRODUCTS				660			
	PETROLEUM INDUSTRY							
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL				660			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.1
Continued

Table 72
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	1567	392			
			HEAVY DUTY	92	27			
			OFF HIGHWAY	2	1			
			TOTAL	1661	420			
		DIESEL	HEAVY DUTY	125	219			
			OFF HIGHWAY	225	97			
			RAIL	32	73			
			TOTAL	382	389			
	AIRCRAFT	MILITARY						
		CIVIL						
		COMMERCIAL						
		TOTAL		5	6			
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL						
		RESIDUAL OIL						
		GASOLINE			2			
		TOTAL			2			
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			2048	817			

Table 7.1
Continued

Table 7.2
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	19				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		2940	3252			
	POINT		459	2176			

COUNTY Passaic
YEAR 1975

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		14	3			
		DISTILLATE OIL		192	743			
		RESIDUAL OIL		27	58			
		NATURAL GAS		5	3			
		WOOD		1				
		TOTAL		239	807			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL		2	16			
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL		2	16			
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	303	631			
			POINT	338	922			
		DISTILLATE OIL	AREA	9	50			
			POINT	38	108			
		NATURAL GAS	AREA	213	13			
			POINT					
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	252	694			
			POINT	376	1030			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	215	446			
			POINT					
		DISTILLATE OIL	AREA	84	410			
			POINT					
		NATURAL GAS	AREA	17	1			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	316	857			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	807	2358			
			POINT	378	1046			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION		AREA		807	2358			
		POINT		378	1046			

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING				36			
	FOOD/AGRICULTURE							
	PRIMARY METAL							
	SECONDARY METALS							
	MINERAL PRODUCTS							
	PETROLEUM INDUSTRY							
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL				36			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	1100	275			
			HEAVY DUTY	83	28			
			OFF HIGHWAY	1				
			TOTAL	1184	303			
		DIESEL	HEAVY DUTY	59	103			
			OFF HIGHWAY	77	79			
			RAIL	13	29			
			TOTAL	199	211			
	AIRCRAFT	MILITARY						
		CIVIL						
		COMMERCIAL						
		TOTAL						
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL						
		RESIDUAL OIL						
		GASOLINE			2			
		TOTAL			2			
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			1333	516			

Table 7.1
Continued

Table 7.1
Continued

Table 7.2
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	11				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		2151	2874			
	POINT		378	1082			

COUNTY Somerset
YEAR 1975

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		5	1			
		DISTILLATE OIL		120	463			
		RESIDUAL OIL		8	13			
		NATURAL GAS		24	1			
		WOOD						
		TOTAL		157	478			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL						
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL						
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	165	345			
			POINT	124	255			
		DISTILLATE OIL	AREA	12	56			
			POINT					
		NATURAL GAS	AREA	9	1			
			POINT	1	1			
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	186	402			
			POINT	125	256			

Table 7.1

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	857	1779			
			POINT					
		DISTILLATE OIL	AREA	33	163			
			POINT					
		NATURAL GAS	AREA	7				
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	897	1942			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	1240	2822			
			POINT	125	256			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION		AREA		1240	2822			
		POINT		125	256			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING							
	FOOD/AGRICULTURE							
	PRIMARY METAL							
	SECONDARY METALS							
	MINERAL PRODUCTS			379				
	PETROLEUM INDUSTRY							
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			379				
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	938	235			
			HEAVY DUTY	54	19			
			OFF HIGHWAY	2	1			
			TOTAL	994	255			
		DIESEL	HEAVY DUTY	28	49			
			OFF HIGHWAY	10	9			
			RAIL	22	51			
			TOTAL	65	109			
	AIRCRAFT	MILITARY						
		CIVIL						
		COMMERCIAL						
		TOTAL		3	2			
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL						
		RESIDUAL OIL						
		GASOLINE						
		TOTAL						
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			1062	366			

Table 7.2
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	6				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		2308	3188			
	POINT		504	256			

Table 7.1
Continued

Table 7.2
County Base Year Emissions Report

COUNTY Union
YEAR 1975

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		20	4			
		DISTILLATE OIL		345	1328			
		RESIDUAL OIL		57	118			
		NATURAL GAS		49	3			
		WOOD						
		TOTAL		471	1453			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL		105	947			
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL		105	947			
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	15	66			
			POINT	1175	2904			
		DISTILLATE OIL	AREA	61	124			
			POINT	58	108			
		NATURAL GAS	AREA	9	1			
			POINT	22	21			
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	85	191			
			POINT	1255	2533			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	299	622			
			POINT					
		DISTILLATE OIL	AREA	12	57			
			POINT					
		NATURAL GAS	AREA	23	1			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	334	680			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	890	2324			
			POINT	1360	3480			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION		AREA		890	2324			
		POINT		1360	3480			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING			228	4884			
	FOOD/AGRICULTURE							
	PRIMARY METAL				7			
	SECONDARY METALS							
	MINERAL PRODUCTS							
	PETROLEUM INDUSTRY			286	1120			
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			517	6011			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	1452	363			
			HEAVY DUTY	87	28			
			OFF HIGHWAY					
			TOTAL	1539	391			
		DIESEL	HEAVY DUTY	80	140			
			OFF HIGHWAY	51	52			
			RAIL	45	102			
			TOTAL	176	294			
	AIRCRAFT	MILITARY						
		CIVIL						
		COMMERCIAL						
		TOTAL		1	1			
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL			162			
		RESIDUAL OIL		10	49			
		GASOLINE			1			
		TOTAL		10	212			
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			1726	898			

Table 7.2
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	11				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		2627	3222			
	POINT		1874	9491			

Table 7.1
Continued

Table 7.2
County Base Year Emissions Report

COUNTY Bergen
YEAR 1980

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		21	4			
		DISTILLATE OIL		495	1895			
		RESIDUAL OIL		83	168			
		NATURAL GAS		102				
		WOOD						
		TOTAL		701	2067			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL		194	1088			
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL		194	1088			
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	182	374			
			POINT	1051	2872			
		DISTILLATE OIL	AREA	42	201			
			POINT	3	6			
		NATURAL GAS	AREA	28	2			
			POINT	1	1			
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	252	577			
			POINT	1055	2879			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	484	1003			
			POINT					
		DISTILLATE OIL	AREA	191	921			
			POINT					
		NATURAL GAS	AREA	37	2			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	712	1926			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	1665	4570			
			POINT	1249	3967			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION		AREA		1665	4570			
		POINT		1249	3967			

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING			75	73			
	FOOD/AGRICULTURE							
	PRIMARY METAL							
	SECONDARY METALS							
	MINERAL PRODUCTS							
	PETROLEUM INDUSTRY							
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			75	73			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	3056	615			
			HEAVY DUTY	196	58			
			OFF HIGHWAY	1				
			TOTAL	3253	673			
		DIESEL	HEAVY DUTY	201	351			
			OFF HIGHWAY	281	289			
			RAIL	43	99			
			TOTAL	525	739			
	AIRCRAFT	MILITARY						
		CIVIL		7	10			
		COMMERCIAL		1	2			
		TOTAL		8	12			
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL			99			
		RESIDUAL OIL		5	21			
		GASOLINE			2			
		TOTAL		5	122			
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			3791	1546			

Table 7.2
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	434				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		5890	6116			
	POINT		1324	4090			

Table 7.1
Continued

COUNTY Essex
YEAR 1980

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		27	6			
		DISTILLATE OIL		470	1790			
		RESIDUAL OIL		184	376			
		NATURAL GAS		62	4			
		WOOD						
		TOTAL		743	2176			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL		2	2			
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL		2	2			
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	310	629			
			POINT	814	2379			
		DISTILLATE OIL	AREA	29	144			
			POINT	25	119			
		NATURAL GAS	AREA	27	2			
			POINT	7	7			
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	366	775			
			POINT	846	2505			

Table 7.1

Table 72
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	552	1148			
			POINT					
		DISTILLATE OIL	AREA	219	1054			
			POINT					
		NATURAL GAS	AREA	43	2			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	814	2204			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	1923	5155			
			POINT	848	2507			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION		AREA		1923	5155			
		POINT		848	2507			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING				2535			
	FOOD/AGRICULTURE							
	PRIMARY METAL			150	81			
	SECONDARY METALS							
	MINERAL PRODUCTS			2203				
	PETROLEUM INDUSTRY							
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			2353	2616			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	2261	455			
			HEAVY DUTY	163	48			
			OFF HIGHWAY	0				
			TOTAL	2424	503			
		DIESEL	HEAVY DUTY	191	334			
			OFF HIGHWAY	213	220			
			RAIL	33	74			
			TOTAL	437	628			
	AIRCRAFT	MILITARY						
		CIVIL		5	7			
		COMMERCIAL		61	123			
		TOTAL		66	130			
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL			86			
		RESIDUAL OIL		9	45			
		GASOLINE			1			
		TOTAL		9	132			
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			2936	1393			

Table 7.1
Continued

Table 7.2
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	763				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		5622	6548			
	POINT		3201	5123			

COUNTY Hudson
YEAR 1980

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		11	2			
		DISTILLATE OIL		247	948			
		RESIDUAL OIL		97	205			
		NATURAL GAS		37	2			
		WOOD		3				
		TOTAL		395	1157			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL		285	1787			
		LIGNITE						
		RESIDUAL OIL		221	359			
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL		506	2146			
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	215	493			
			POINT	2076	3559			
		DISTILLATE OIL	AREA	28	138			
			POINT	7	7			
		NATURAL GAS	AREA	26	1			
			POINT					
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	269	582			
			POINT	2083	3566			

Table 7.1

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	286	595			
			POINT					
		DISTILLATE OIL	AREA	113	546			
			POINT					
		NATURAL GAS	AREA	22	1			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	421	1142			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	1085	2881			
			POINT	2589	5712			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION		AREA		1085	2881			
		POINT		2589	5712			

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING			351	198			
	FOOD/AGRICULTURE			80				
	PRIMARY METAL							
	SECONDARY METALS							
	MINERAL PRODUCTS			162	372			
	PETROLEUM INDUSTRY			166	1			
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			759	571			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	955	193			
			HEAVY DUTY	96	29			
			OFF HIGHWAY					
			TOTAL	1051	222			
		DIESEL	HEAVY DUTY	164	287			
			OFF HIGHWAY	171	176			
			RAIL	40	91			
			TOTAL	375	554			
	AIRCRAFT	MILITARY						
		CIVIL						
		COMMERCIAL						
		TOTAL						
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL			231			
		RESIDUAL OIL		18	86			
		GASOLINE			3			
		TOTAL		18	320			
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			1444	1096			

Table 7.1
Continued

Table 7.2
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	747				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		3276	5977			
	POINT		3348	6283			

Table 7.2
County Base Year Emissions Report

COUNTY Middlesex
YEAR 1980

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		10	2			
		DISTILLATE OIL		305	1171			
		RESIDUAL OIL		41	84			
		NATURAL GAS		54	4			
		WOOD		1				
		TOTAL		411	1261			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL		117	926			
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL		117	926			
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	125	261			
			POINT	1956	5341			
		DISTILLATE OIL	AREA	3	20			
			POINT	80	151			
		NATURAL GAS	AREA	23	1			
			POINT	7	6			
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	151	282			
			POINT	2043	5498			

Table 7.1

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	321	666			
			POINT					
		DISTILLATE OIL	AREA	108	517			
			POINT					
		NATURAL GAS	AREA	21	1			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	450	1184			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	1012	2727			
			POINT	2160	6424			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL		20	15			
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION			20	15			
TOTAL FUEL COMBUSTION		AREA		1012	2727			
		POINT		2180	6439			

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING			1032	9694			
	FOOD/AGRICULTURE							
	PRIMARY METAL			966	57			
	SECONDARY METALS							
	MINERAL PRODUCTS			76	388			
	PETROLEUM INDUSTRY			1218	5949			
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			3292	16088			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	2647	530			
			HEAVY DUTY	143	43			
			OFF HIGHWAY	1	1			
			TOTAL	2791	574			
		DIESEL	HEAVY DUTY	188	329			
			OFF HIGHWAY	120	123			
			RAIL	80	181			
			TOTAL	388	633			
	AIRCRAFT	MILITARY						
		CIVIL						
		COMMERCIAL						
		TOTAL						
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL			196			
		RESIDUAL OIL		4	20			
		GASOLINE			1			
		TOTAL		4	217			
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			3183	1424			

Table 7.1
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	262				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		4457	4151			
	POINT		5472	22527			

COUNTY Monmouth
YEAR 1980

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		5	1			
		DISTILLATE OIL		298	1143			
		RESIDUAL OIL		33	68			
		NATURAL GAS		51	3			
		WOOD		2				
		TOTAL		389	1215			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL						
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL						
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	87	187			
			POINT	198	625			
		DISTILLATE OIL	AREA	9	52			
			POINT					
		NATURAL GAS	AREA	9	1			
			POINT					
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	105	240			
			POINT	198	625			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	184	384			
			POINT					
		DISTILLATE OIL	AREA	74	352			
			POINT					
		NATURAL GAS	AREA	14	1			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	272	737			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	766	2192			
			POINT	198	675			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION		AREA		766	2192			
		POINT		198	675			

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING							
	FOOD/AGRICULTURE							
	PRIMARY METAL							
	SECONDARY METALS							
	MINERAL PRODUCTS			417				
	PETROLEUM INDUSTRY							
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			417				
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	1820	366			
			HEAVY DUTY	100	30			
			OFF HIGHWAY	2	1			
			TOTAL	1922	397			
		DIESEL	HEAVY DUTY	59	102			
			OFF HIGHWAY	115	117			
			RAIL	40	91			
			TOTAL	214	310			
	AIRCRAFT	MILITARY						
		CIVIL		4	5			
		COMMERCIAL						
		TOTAL		4	5			
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL			146			
		RESIDUAL OIL		9	43			
		GASOLINE			3			
		TOTAL		9	192			
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			2149	904			

Table 7.2
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	191				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		3106	3096			
	POINT		615	675			

Table 7.1
Continued

Table 7.2
County Base Year Emissions Report

COUNTY Morris
YEAR 1980

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		9	2			
		DISTILLATE OIL		299	861			
		RESIDUAL OIL		27	54			
		NATURAL GAS		31	2			
		WOOD		1				
		TOTAL		367	919			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL						
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL						
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT	107	225			
		RESIDUAL OIL	AREA	491	1109			
			POINT	9	48			
		DISTILLATE OIL	AREA	68	63			
			POINT	16	1			
		NATURAL GAS	AREA	1	1			
			POINT					
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	132	289			
			POINT	525	1158			

Table 7.1

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	287	593			
			POINT					
		DISTILLATE OIL	AREA	100	470			
			POINT					
		NATURAL GAS	AREA	23	1			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	410	1064			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	909	2272			
			POINT	525	1158			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION		AREA		909	2272			
		POINT		525	1158			

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING							
	FOOD/AGRICULTURE							
	PRIMARY METAL							
	SECONDARY METALS							
	MINERAL PRODUCTS				760			
	PETROLEUM INDUSTRY							
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL				760			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	1820	316			
			HEAVY DUTY	106	32			
			OFF HIGHWAY	2	1			
			TOTAL	1928	359			
		DIESEL	HEAVY DUTY	145	254			
			OFF HIGHWAY	85	85			
			RAIL	36	82			
			TOTAL	266	421			
	AIRCRAFT	MILITARY						
		CIVIL		6	8			
		COMMERCIAL		1				
		TOTAL		7	8			
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL						
		RESIDUAL OIL						
		GASOLINE			2			
		TOTAL			2			
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			2201	830			

Table 7.1
Continued

Table 7.2
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	147				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		3257	3102			
	POINT		525	1918			

COUNTY Passaic
YEAR 1980

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		14	3			
		DISTILLATE OIL		192	744			
		RESIDUAL OIL		31	64			
		NATURAL GAS		5	3			
		WOOD		1				
		TOTAL		243	814			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL		2	16			
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL		2	16			
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	303	631			
			POINT	375	1023			
		DISTILLATE OIL	AREA	9	50			
			POINT	42	120			
		NATURAL GAS	AREA	213	13			
			POINT					
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	525	694			
			POINT	417	1143			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	215	446			
			POINT					
		DISTILLATE OIL	AREA	84	410			
			POINT					
		NATURAL GAS	AREA	17	1			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	316	857			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	1084	2365			
			POINT	419	1159			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION		AREA		1084	2365			
		POINT		419	1159			

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING				47			
	FOOD/AGRICULTURE							
	PRIMARY METAL							
	SECONDARY METALS							
	MINERAL PRODUCTS							
	PETROLEUM INDUSTRY							
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL				47			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	1334	269			
			HEAVY DUTY	116	35			
			OFF HIGHWAY	1				
			TOTAL	1451	304			
		DIESEL	HEAVY DUTY	71	125			
			OFF HIGHWAY	79	81			
			RAIL	14	33			
			TOTAL	164	239			
	AIRCRAFT	MILITARY						
		CIVIL						
		COMMERCIAL						
		TOTAL						
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL						
		RESIDUAL OIL						
		GASOLINE		2				
		TOTAL		2				
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			1617	543			

Table 7.2
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	239				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		2940	2908			
	POINT		419	1206			

COUNTY Somerset
YEAR 1980

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		5	1			
		DISTILLATE OIL		128	456			
		RESIDUAL OIL		10	17			
		NATURAL GAS		23	1			
		WOOD						
		TOTAL		166	515			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL						
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL						
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	167	348			
			POINT	138	283			
		DISTILLATE OIL	AREA	12	57			
			POINT					
		NATURAL GAS	AREA	9	1			
			POINT	1	1			
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	188	406			
			POINT	139	284			

Table 7.1

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	866	1297			
			POINT					
		DISTILLATE OIL	AREA	33	164			
			POINT					
		NATURAL GAS	AREA	7				
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	906	1561			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	1260	2882			
			POINT	139	284			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION		AREA		1260	2882			
		POINT		139	284			

Table 72
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING							
	FOOD/AGRICULTURE							
	PRIMARY METAL							
	SECONDARY METALS							
	MINERAL PRODUCTS			436				
	PETROLEUM INDUSTRY							
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			436				
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	1258	253			
			HEAVY DUTY	86	26			
			OFF HIGHWAY	2	1			
			TOTAL	1346	280			
		DIESEL	HEAVY DUTY	38	66			
			OFF HIGHWAY	10	9			
			RAIL	25	58			
			TOTAL	73	133			
	AIRCRAFT	MILITARY						
		CIVIL		4	3			
		COMMERCIAL						
		TOTAL		4	3			
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL						
		RESIDUAL OIL						
		GASOLINE						
		TOTAL						
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			1423	416			

Table 7.2
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	57				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		2740	3298			
	POINT		575	284			

COUNTY Union
YEAR 1980

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		19	3			
		DISTILLATE OIL		364	1400			
		RESIDUAL OIL		63	131			
		NATURAL GAS		45	3			
		WOOD						
		TOTAL		491	1537			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL		99	900			
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL		99	900			
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	15	66			
			POINT	1309	2668			
		DISTILLATE OIL	AREA	61	129			
			POINT	64	120			
		NATURAL GAS	AREA	9	1			
			POINT	24	23			
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	85	191			
			POINT	1392	2811			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	299	622			
			POINT					
		DISTILLATE OIL	AREA	12	57			
			POINT					
		NATURAL GAS	AREA	23	1			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	334	680			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	910	2408			
			POINT	1491	3711			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION		AREA		910	2408			
		POINT		1491	3711			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING			296	6270			
	FOOD/AGRICULTURE							
	PRIMARY METAL							
	SECONDARY METALS				6			
	MINERAL PRODUCTS							
	PETROLEUM INDUSTRY			316	1255			
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			612	2521			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	1663	335			
			HEAVY DUTY	109	33			
			OFF HIGHWAY					
			TOTAL	1772	368			
		DIESEL	HEAVY DUTY	92	161			
			OFF HIGHWAY	52	54			
			RAIL	51	115			
			TOTAL	195	330			
	AIRCRAFT	MILITARY						
		CIVIL		2	2			
		COMMERCIAL						
		TOTAL		2	2			
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL			202			
		RESIDUAL OIL		13	61			
		GASOLINE			1			
		TOTAL		13	264			
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			1982	964			

Table 7.1
Continued

Table 7.2
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	266				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		3158	3372			
	POINT		2103	11282			

Table 7.1
Continued

Table 7.2
County Base Year Emissions Report

COUNTY Bergen
YEAR 1983

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		21	4			
		DISTILLATE OIL		576	2203			
		RESIDUAL OIL		100	203			
		NATURAL GAS		101	0			
		WOOD						
		TOTAL		798	2410			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL		96	326			
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL		96	326			
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	184	377			
			POINT	1155	3157			
		DISTILLATE OIL	AREA	43	203			
			POINT	4	6			
		NATURAL GAS	AREA	29	2			
			POINT	1	1			
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	256	582			
			POINT	1160	3164			

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	489	1013			
			POINT					
		DISTILLATE OIL	AREA	193	930			
			POINT					
		NATURAL GAS	AREA	38	2			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	720	1945			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	1774	4937			
			POINT	1256	3490			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION		AREA		1774	4937			
		POINT		1256	3490			

Table 7.1
Continued

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING			88	85			
	FOOD/AGRICULTURE							
	PRIMARY METAL							
	SECONDARY METALS							
	MINERAL PRODUCTS							
	PETROLEUM INDUSTRY							
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			88	85			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		ARE/.					
			POINT					

Table 7.1
Continued

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	3232	632			
			HEAVY DUTY	208	62			
			OFF HIGHWAY	1	0			
			TOTAL	3441	694			
		DIESEL	HEAVY DUTY	212	371			
			OFF HIGHWAY	286	295			
			RAIL	47	107			
			TOTAL	545	773			
	AIRCRAFT	MILITARY		0	0			
		CIVIL		9	13			
		COMMERCIAL		1	3			
		TOTAL		10	16			
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL			112			
		RESIDUAL OIL		5	24			
		GASOLINE			2			
		TOTAL		5	138			
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			4001	1621			

Table 7.1
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	61				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		5834	6558			
	POINT		1344	3575			

COUNTY Hudson
YEAR 1985

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		11	2			
		DISTILLATE OIL		259	995			
		RESIDUAL OIL		102	213			
		NATURAL GAS		37	2			
		WOOD		3	0			
		TOTAL		412	1212			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL		46	3346			
		LIGNITE						
		RESIDUAL OIL		84	279			
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL		130	3625			
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	222	456			
			POINT	2281	3911			
		DISTILLATE OIL	AREA	28	142			
			POINT	7	7			
		NATURAL GAS	AREA	26	1			
			POINT					
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	276	599			
			POINT	2288	3918			

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	305	630			
			POINT					
		DISTILLATE OIL	AREA	121	578			
			POINT					
		NATURAL GAS	AREA	24	1			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	450	1209			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	1138	3020			
			POINT	2418	7543			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION		AREA		1138	3020			
		POINT		2418	7543			

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING			412	232			
	FOOD/AGRICULTURE			80				
	PRIMARY METAL							
	SECONDARY METALS							
	MINERAL PRODUCTS			182	417			
	PETROLEUM INDUSTRY			178	1			
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			852	650			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	980	192			
			HEAVY DUTY	98	29			
			OFF HIGHWAY	0	0			
			TOTAL	1078	221			
		DIESEL	HEAVY DUTY	168	294			
			OFF HIGHWAY	174	180			
			RAIL	43	98			
			TOTAL	385	572			
	AIRCRAFT	MILITARY		—	—			
		CIVIL		—				
		COMMERCIAL						
		TOTAL						
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL			262			
		RESIDUAL OIL		20	97			
		GASOLINE		—	3			
		TOTAL		20	362			
	GAS HANDLING EVAPORATION LOSS			—				
	TOTAL TRANSPORTATION			1483	1155			

Table 7.1
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	35				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		2656	4175			
	POINT		3270	8193			

Table 7.1
Continued

COUNTY Essex
YEAR 1985

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		27	6			
		DISTILLATE OIL		546	2102			
		RESIDUAL OIL		204	420			
		NATURAL GAS		67	4			
		WOOD						
		TOTAL		844	2532			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL		1	2			
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL		1	2			
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	307	636			
			POINT	894	2614			
		DISTILLATE OIL	AREA	29	146			
			POINT	28	131			
		NATURAL GAS	AREA	27	2			
			POINT	7	7			
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	363	784			
			POINT	929	2752			

Table 7.1
Continued

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	557	1159			
			POINT					
		DISTILLATE OIL	AREA	221	1064			
			POINT					
		NATURAL GAS	AREA	44				
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	822	2223			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	2029	5533			
			POINT	930	2754			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION		AREA		2029	5533			
		POINT		930	2754			

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	2303	450			
			HEAVY DUTY	166	49			
			OFF HIGHWAY	0	0			
			TOTAL	2469	499			
		DIESEL	HEAVY DUTY	194	340			
			OFF HIGHWAY	218	225			
			RAIL	35	80			
			TOTAL	447	645			
	AIRCRAFT	MILITARY		0	0			
		CIVIL		6	9			
		COMMERCIAL		79	159			
		TOTAL		85	168			
	VESSELS	BITUMINOUS COAL		—	—			
		DIESEL FUEL			97			
		RESIDUAL OIL		11	51			
		GASOLINE		—	1			
		TOTAL		11	149			
	GAS HANDLING EVAPORATION LOSS			—	—			
	TOTAL TRANSPORTATION			3012	1461			

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING				2970			
	FOOD/AGRICULTURE							
	PRIMARY METAL			150	81			
	SECONDARY METALS							
	MINERAL PRODUCTS			2465				
	PETROLEUM INDUSTRY							
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			2615	3051			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.1
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	34				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		5075	6994			
	POINT		3545	5805			

Table 7.1
Continued

Table 7.1

COUNTY Middlesex
YEAR 1985

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		10	2			
		DISTILLATE OIL		350	1345			
		RESIDUAL OIL		56	117			
		NATURAL GAS		54	4			
		WOOD		1	0			
		TOTAL		471	1468			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL		49	395			
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL		49	395			
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	137	286			
			POINT	2150	5871			
		DISTILLATE OIL	AREA	3	22			
			POINT	88	166			
		NATURAL GAS	AREA	25	1			
			POINT	7	6			
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	165	309			
			POINT	2245	6043			

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	348	722			
			POINT					
		DISTILLATE OIL	AREA	117	561			
			POINT					
		NATURAL GAS	AREA	23	1			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	488	1284			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	1124	3061			
			POINT	2294	6438			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL		20	14			
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION		AREA		1124	3061			
		POINT		2314	6452			

Table 7.1
Continued

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING			1209	11353			
	FOOD/AGRICULTURE							
	PRIMARY METAL			966	57			
	SECONDARY METALS							
	MINERAL PRODUCTS			85	434			
	PETROLEUM INDUSTRY			1307	6384			
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			3567	18228			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	3003	584			
			HEAVY DUTY	163	48			
			OFF HIGHWAY	1	1			
			TOTAL	1367	633			
		DIESEL	HEAVY DUTY	214	374			
			OFF HIGHWAY	122	125			
			RAIL	86	196			
			TOTAL	422	695			
	AIRCRAFT	MILITARY		—	—			
		CIVIL			—			
		COMMERCIAL		—	—			
		TOTAL			—			
	VESSELS	BITUMINOUS COAL		—	—			
		DIESEL FUEL		—	222			
		RESIDUAL OIL		5	22			
		GASOLINE		—	2			
		TOTAL		5	246			
	GAS HANDLING EVAPORATION LOSS				—			
	TOTAL TRANSPORTATION			3594	1574			

Table 7.1
Continued

Table 7. 1
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	90				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		4808	4635			
	POINT		5881	24666			

Table 7.1

Table 7.2
County Base Year Emissions Report

COUNTY Monmouth
YEAR 1985

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		5	1			
		DISTILLATE OIL		360	1380			
		RESIDUAL OIL		40	84			
		NATURAL GAS		52	3			
		WOOD		2	0			
		TOTAL		459	1468			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL						
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL						
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	95	199			
			POINT	217	742			
		DISTILLATE OIL	AREA	10	55			
			POINT					
		NATURAL GAS	AREA	10	1			
			POINT					
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	115	255			
			POINT	217	742			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	194	406			
			POINT					
		DISTILLATE OIL	AREA	78	372			
			POINT					
		NATURAL GAS	AREA	15	1			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	287	779			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	861	2501			
			POINT	217	742			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION		AREA		861	2501			
		POINT		217	742			

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING							
	FOOD/AGRICULTURE							
	PRIMARY METAL							
	SECONDARY METALS							
	MINERAL PRODUCTS			466				
	PETROLEUM INDUSTRY							
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			466				
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	2040	398			
			HEAVY DUTY	112	33			
			OFF HIGHWAY	2	1			
			TOTAL	2154	432			
		DIESEL	HEAVY DUTY	66	115			
			OFF HIGHWAY	117	118			
			RAIL	43	98			
			TOTAL	226	331			
	AIRCRAFT	MILITARY		1	1			
		CIVIL		5	6			
		COMMERCIAL						
		TOTAL		6	7			
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL			165			
		RESIDUAL OIL		10	48			
		GASOLINE			3			
		TOTAL		10	216			
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			2396	986			

Table 7.1
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	31				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		3288	3487			
	POINT		683	742			

Table 7.2
County Base Year Emissions Report

COUNTY Morris
YEAR 1985

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		9	2			
		DISTILLATE OIL		372	1073			
		RESIDUAL OIL		34	69			
		NATURAL GAS		31	2			
		WOOD		1	0			
		TOTAL		447	1146			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL						
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL						
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	113	240			
			POINT	484	1219			
		DISTILLATE OIL	AREA	10	52			
			POINT	74	70			
		NATURAL GAS	AREA	17	1			
			POINT	1	1			
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	140	293			
			POINT	559	1290			

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	304	634			
			POINT					
		DISTILLATE OIL	AREA	106	502			
			POINT					
		NATURAL GAS	AREA	24	1			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	434	1137			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	1021	2576			
			POINT	559	1290			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION		AREA		1021	2576			
		POINT		559	1290			

Table 7.1
Continued

Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING							
	FOOD/AGRICULTURE							
	PRIMARY METAL							
	SECONDARY METALS							
	MINERAL PRODUCTS				850			
	PETROLEUM INDUSTRY							
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL				850			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	1985	388			
			HEAVY DUTY	116	34			
			OFF HIGHWAY	2	1			
			TOTAL	2103	423			
		DIESEL	HEAVY DUTY	158	277			
			OFF HIGHWAY	86	86			
			RAIL	39	89			
			TOTAL	283	452			
	AIRCRAFT	MILITARY						
		CIVIL		8	10			
		COMMERCIAL		1	1			
		TOTAL		9	11			
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL						
		RESIDUAL OIL						
		GASOLINE			2			
		TOTAL			2			
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			2375	888			

Table 7.1
Continued

Table 7.1
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	26				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		3442	3464			
	POINT		559	2140			

COUNTY Passaic
YEAR 1985

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		14	3			
		DISTILLATE OIL		208	802			
		RESIDUAL OIL		34	69			
		NATURAL GAS		5	2			
		WOOD		1	0			
		TOTAL		262	876			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL		2	15			
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL		2	15			
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	309	643			
			POINT	412	1125			
		DISTILLATE OIL	AREA	9	51			
			POINT	46	132			
		NATURAL GAS	AREA	217	13			
			POINT					
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	535	707			
			POINT	458	1257			

Table 7.1

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	219	455			
			POINT					
		DISTILLATE OIL	AREA	86	418			
			POINT					
		NATURAL GAS	AREA	17	1			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	322	874			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	1119	2457			
			POINT	460	1222			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION		AREA		1119	2457			
		POINT		460	1272			

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING				55			
	FOOD/AGRICULTURE							
	PRIMARY METAL							
	SECONDARY METALS							
	MINERAL PRODUCTS							
	PETROLEUM INDUSTRY							
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL				55			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	1403	275			
			HEAVY DUTY	121	36			
			OFF HIGHWAY	1				
			TOTAL	1525	311			
		DIESEL	HEAVY DUTY	75	131			
			OFF HIGHWAY	81	83			
			RAIL	16	36			
			TOTAL	172	250			
	AIRCRAFT	MILITARY						
		CIVIL						
		COMMERCIAL						
		TOTAL						
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL						
		RESIDUAL OIL						
		GASOLINE			2			
		TOTAL			2			
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			1697	563			

Table 7.1
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	16				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		2832	3020			
	POINT		460	1327			

Table 7.1
Continued

COUNTY Somerset
YEAR 1985

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		5	1			
		DISTILLATE OIL		212	607			
		RESIDUAL OIL		13	22			
		NATURAL GAS		25	1			
		WOOD		0	0			
		TOTAL		255	631			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL						
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL						
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	180	376			
			POINT	151	311			
		DISTILLATE OIL	AREA	13	61			
			POINT					
		NATURAL GAS	AREA	10	1			
			POINT	1	1			
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	203	438			
			POINT	152	312			

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	934	1939			
			POINT					
		DISTILLATE OIL	AREA	36	178			
			POINT					
		NATURAL GAS	AREA	8	0			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	978	2117			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	1436	3186			
			POINT	152	312			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION		AREA		1436	3186			
		POINT		152	312			

Table 7.1
Continued

Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING							
	FOOD/AGRICULTURE							
	PRIMARY METAL							
	SECONDARY METALS							
	MINERAL PRODUCTS			488				
	PETROLEUM INDUSTRY							
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			488	0			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	1418	277			
			HEAVY DUTY	97	29			
			OFF HIGHWAY	2	1			
			TOTAL	1517	307			
		DIESEL	HEAVY DUTY	42	74			
			OFF HIGHWAY	10	9			
			RAIL	27	62			
			TOTAL	79	145			
	AIRCRAFT	MILITARY						
		CIVIL		6	5			
		COMMERCIAL						
		TOTAL		6	5			
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL						
		RESIDUAL OIL						
		GASOLINE						
		TOTAL						
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			1602	457			

Table 7.1
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	14				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		3052	3643			
	POINT		640	312			

Table 7.1
Continued

Table 7.2
County Base Year Emissions Report

COUNTY Union

YEAR 1985

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		19	3			
		DISTILLATE OIL		347	1340			
		RESIDUAL OIL		63	131			
		NATURAL GAS		50	3			
		WOOD		0	0			
		TOTAL		479	1477			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL		132	923			
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL		132	923			
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	15	66			
			POINT	1934	2933			
		DISTILLATE OIL	AREA	61	124			
			POINT	21	132			
		NATURAL GAS	AREA	9	1			
			POINT	27	26			
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	85	191			
			POINT	1532	3091			

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	293	616			
			POINT					
		DISTILLATE OIL	AREA	12	56			
			POINT					
		NATURAL GAS	AREA	23	1			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	328	673			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	892	2341			
			POINT	1664	4014			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION		AREA		892	2341			
		POINT		1664	4014			

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING			346	7343			
	FOOD/AGRICULTURE							
	PRIMARY METAL				6			
	SECONDARY METALS							
	MINERAL PRODUCTS							
	PETROLEUM INDUSTRY			340	1390			
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			686	8739			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	1696	331			
			HEAVY DUTY	111	33			
			OFF HIGHWAY		0			
			TOTAL	1807	363			
		DIESEL	HEAVY DUTY	94	165			
			OFF HIGHWAY	53	55			
			RAIL	55	125			
			TOTAL	202	345			
	AIRCRAFT	MILITARY		–	–			
		CIVIL		3	3			
		COMMERCIAL		–	–			
		TOTAL		3	3			
	VESSELS	BITUMINOUS COAL		–	–			
		DIESEL FUEL		–	228			
		RESIDUAL OIL		14	68			
		GASOLINE						
		TOTAL		14	297			
	GAS HANDLING EVAPORATION LOSS			–				
	TOTAL TRANSPORTATION			2026	1008			

Table 7.1
Continued

Table 7.1
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	14				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL		AREA	2932	3349			
		POINT	2350	12753			

Table 7.1
Continued

Table 7.2
County Base Year Emissions Report

COUNTY Bergen
YEAR 2000

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		21	4			
		DISTILLATE OIL		712	2728			
		RESIDUAL OIL		130	262			
		NATURAL GAS		100	0			
		WOOD						
		TOTAL		963	2994			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL		156	876			
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL		156	876			
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	216	449			
			POINT	1610	4398			
		DISTILLATE OIL	AREA	50	239			
			POINT	5	9			
		NATURAL GAS	AREA	34	2			
			POINT	2	2			
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	300	685			
			POINT	1617	4909			

Table 7.1

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	525	1192			
			POINT					
		DISTILLATE OIL	AREA	227	1094			
			POINT					
		NATURAL GAS	AREA	44	2			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	846	2288			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	2109	5967			
			POINT	1773	5285			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION		AREA		2109	5967			
		POINT		1773	5285			

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING			146	141			
	FOOD/AGRICULTURE							
	PRIMARY METAL							
	SECONDARY METALS							
	MINERAL PRODUCTS							
	PETROLEUM INDUSTRY							
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			146	141			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	3391	550			
			HEAVY DUTY	218	65			
			OFF HIGHWAY	1				
			TOTAL	3610	115			
		DIESEL	HEAVY DUTY	223	389			
			OFF HIGHWAY	304	313			
			RAIL	56	128			
			TOTAL	583	830			
	AIRCRAFT	MILITARY						
		CIVIL		11	16			
		COMMERCIAL		2	4			
		TOTAL		13	20			
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL			155			
		RESIDUAL OIL		7	34			
		GASOLINE			2			
		TOTAL		7	191			
	GAS HANDLING EVAPORATION LOSS			—				
	TOTAL TRANSPORTATION			4213	1156			

Table 7.1
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	26				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL		AREA	6348	7123			
		POINT	1919	5426			

Table 7.1

COUNTY Essex
YEAR 2000

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		27	6			
		DISTILLATE OIL		736	2120			
		RESIDUAL OIL		200	408			
		NATURAL GAS		63	4			
		WOOD						
		TOTAL		1026	2538			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL		2	1			
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL		2	1			
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	313	647			
			POINT	1246	3643			
		DISTILLATE OIL	AREA	29	148			
			POINT	39	182			
		NATURAL GAS	AREA	27	2			
			POINT	10	10			
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	369	797			
			POINT	1295	3835			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	568	1180			
			POINT					
		DISTILLATE OIL	AREA	226	1083			
			POINT					
		NATURAL GAS	AREA	45	2			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	839	2265			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	2234	5600			
			POINT	1297	3836			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION		AREA		2234	5600			
		POINT		1297	3836			

Table 7.1
Continued

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING				4913			
	FOOD/AGRICULTURE							
	PRIMARY METAL			153	84			
	SECONDARY METALS							
	MINERAL PRODUCTS							
	PETROLEUM INDUSTRY			3575				
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			3728	4997			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	2462	400			
			HEAVY DUTY	177	53			
			OFF HIGHWAY	0	0			
			TOTAL	2639	453			
		DIESEL	HEAVY DUTY	208	363			
			OFF HIGHWAY	231	238			
			RAIL	42	46			
			TOTAL	481	697			
	AIRCRAFT	MILITARY		0	0			
		CIVIL		7	11			
		COMMERCIAL		97	197			
		TOTAL		104	208			
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL			135			
		RESIDUAL OIL		15	71			
		GASOLINE			1			
		TOTAL		15	207			
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			3239	1565			

Table 7.2
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	24				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		5497	7165			
	POINT		5025	8833			

Table 7.1
Continued

COUNTY Hudson
YEAR 2000

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		11	2			
		DISTILLATE OIL		335	1294			
		RESIDUAL OIL		133	280			
		NATURAL GAS		37	2			
		WOOD		3				
		TOTAL		519	1578			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL		222	1442			
		LIGNITE						
		RESIDUAL OIL		115	302			
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL		337	1704			
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	234	482			
			POINT	3179	5450			
		DISTILLATE OIL	AREA	30	150			
			POINT	10	10			
		NATURAL GAS	AREA	28	1			
			POINT					
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	292	633			
			POINT	3189	5460			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	311	647			
			POINT					
		DISTILLATE OIL	AREA	123	594			
			POINT					
		NATURAL GAS	AREA	24	1			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	458	1242			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	1269	3453			
			POINT	3526	7164			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION		AREA		1269	3453			
		POINT		3526	7164			

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING			681	384			
	FOOD/AGRICULTURE			93				
	PRIMARY METAL							
	SECONDARY METALS							
	MINERAL PRODUCTS			263	605			
	PETROLEUM INDUSTRY			230	2			
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			1267	991			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	1030	168			
			HEAVY DUTY	103	31			
			OFF HIGHWAY					
			TOTAL	1133	199			
		DIESEL	HEAVY DUTY	177	309			
			OFF HIGHWAY	184	191			
			RAIL	51	117			
			TOTAL	412	617			
	AIRCRAFT	MILITARY						
		CIVIL						
		COMMERCIAL						
		TOTAL						
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL			364			
		RESIDUAL OIL		28	136			
		GASOLINE			3			
		TOTAL		28	503			
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			1573	1319			

Table 7.2
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	20				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		2862	4772			
	POINT		4793	8155			

Table 7.1
Continued

Table 7.1

Table 7.2
County Base Year Emissions Report

COUNTY Middlesex
YEAR 2000

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		12	3			
		DISTILLATE OIL		394	1517			
		RESIDUAL OIL		72	148			
		NATURAL GAS		50	3			
		WOOD		1				
		TOTAL		529	1671			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL		93	746			
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL		93	746			
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	161	336			
			POINT	2995	8180			
		DISTILLATE OIL	AREA	4	26			
			POINT	122	231			
		NATURAL GAS	AREA	30	1			
			POINT	10	9			
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	195	363			
			POINT	3127	8420			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	409	848			
			POINT					
		DISTILLATE OIL	AREA	138	659			
			POINT					
		NATURAL GAS	AREA	27	1			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	574	1508			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	1298	3542			
			POINT	3220	9166			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL		17	11			
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION		AREA		1298	3542			
		POINT		3237	9177			

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING			2000	18782			
	FOOD/AGRICULTURE							
	PRIMARY METAL			991	59			
	SECONDARY METALS							
	MINERAL PRODUCTS			123	630			
	PETROLEUM INDUSTRY			1684	8228			
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			4798	27699			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	3210	517			
			HEAVY DUTY	174	52			
			OFF HIGHWAY	1				
			TOTAL	3385	569			
		DIESEL	HEAVY DUTY	228	339			
			OFF HIGHWAY	129	132			
			RAIL	103	234			
			TOTAL	460	765			
	AIRCRAFT	MILITARY						
		CIVIL						
		COMMERCIAL						
		TOTAL						
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL			309			
		RESIDUAL OIL		7	31			
		GASOLINE			2			
		TOTAL		7	342			
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			3852	1676			

Table 7.1
Continued

Table 7.2
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	29				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		5179	5218			
	POINT		8035	36876			

Table 7.1
Continued

COUNTY Monmouth
YEAR 2000

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		5	1			
		DISTILLATE OIL		484	1858			
		RESIDUAL OIL		55	112			
		NATURAL GAS		54	3			
		WOOD		2	0			
		TOTAL		600	1974			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL						
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL						
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	111	232			
			POINT	303	1033			
		DISTILLATE OIL	AREA	12	65			
			POINT					
		NATURAL GAS	AREA	12	1			
			POINT					
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	135	298			
			POINT	303	1033			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	227	474			
			POINT					
		DISTILLATE OIL	AREA	91	434			
			POINT					
		NATURAL GAS	AREA	17	1			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	335	909			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	1070	3181			
			POINT	303	1033			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION		AREA		1070	3181			
		POINT		303	1033			

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING							
	FOOD/AGRICULTURE							
	PRIMARY METAL							
	SECONDARY METALS							
	MINERAL PRODUCTS			676				
	PETROLEUM INDUSTRY							
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			676				
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	2425	394			
			HEAVY DUTY	133	40			
			OFF HIGHWAY	2	1			
			TOTAL	2560	435			
		DIESEL	HEAVY DUTY	73	137			
			OFF HIGHWAY	123	125			
			RAIL	51	117			
			TOTAL	252	379			
	AIRCRAFT	MILITARY		1	1			
		CIVIL		7	8			
		COMMERCIAL						
		TOTAL		8	9			
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL			230			
		RESIDUAL OIL		14	67			
		GASOLINE			4			
		TOTAL		14	301			
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			2834	1124			

Table 7.2
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	14				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		3918	4305			
	POINT		979	1033			

Table 7.1
Continued

COUNTY Morris
YEAR 2000

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		9	2			
		DISTILLATE OIL		500	1438			
		RESIDUAL OIL		47	97			
		NATURAL GAS		32	2			
		WOOD		1				
		TOTAL		589	1539			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL						
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL						
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	130	275			
			POINT	675	1698			
		DISTILLATE OIL	AREA	11	59			
			POINT	109	97			
		NATURAL GAS	AREA	19	1			
			POINT	2	2			
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	160	335			
			POINT	781	1797			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	348	726			
			POINT					
		DISTILLATE OIL	AREA	121	575			
			POINT					
		NATURAL GAS	AREA	28	1			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	497	1302			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA		3176			
			POINT					
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION		AREA		1246	3176			
		POINT		781	1797			

Table 7.1
Continued

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING							
	FOOD/AGRICULTURE							
	PRIMARY METAL							
	SECONDARY METALS							
	MINERAL PRODUCTS				1233			
	PETROLEUM INDUSTRY							
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL				1233			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	3347	364			
			HEAVY DUTY	130	39			
			OFF HIGHWAY					
			TOTAL	3477	403			
		DIESEL	HEAVY DUTY	179	313			
			OFF HIGHWAY	90	91			
			RAIL	47	107			
			TOTAL	316	511			
	AIRCRAFT	MILITARY		1				
		CIVIL		10	12			
		COMMERCIAL		1	1			
		TOTAL		12	13			
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL						
		RESIDUAL OIL						
		GASOLINE			3			
		TOTAL			3			
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			3805	930			

Table 7.1
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	9				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		5060	4106			
	POINT		781	3030			

Table 7.1
Continued

Table 7.2
County Base Year Emissions Report

COUNTY Passaic
YEAR 2000

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		14	3			
		DISTILLATE OIL		245	948			
		RESIDUAL OIL		41	85			
		NATURAL GAS		5	3			
		WOOD		1				
		TOTAL		306	1039			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL		2	12			
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL		2	12			
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	330	688			
			POINT	575	1567			
		DISTILLATE OIL	AREA	10	55			
			POINT	65	184			
		NATURAL GAS	AREA	232	14			
			POINT					
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	572	757			
			POINT	640	1751			

Table 7.1

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	234	486			
			POINT					
		DISTILLATE OIL	AREA	92	447			
			POINT					
		NATURAL GAS	AREA	18	1			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	344	934			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	1222	2730			
			POINT					
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION			AREA	1222	2730			
			POINT	642	1763			

Table 7.1
Continued

Table 7.1
Continued

Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING				90			
	FOOD/AGRICULTURE							
	PRIMARY METAL							
	SECONDARY METALS							
	MINERAL PRODUCTS							
	PETROLEUM INDUSTRY							
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL				90			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	1486	242			
			HEAVY DUTY	129	38			
			OFF HIGHWAY	1				
			TOTAL	1616	280			
		DIESEL	HEAVY DUTY	80	139			
			OFF HIGHWAY	85	88			
			RAIL	19	93			
			TOTAL	184	220			
	AIRCRAFT	MILITARY						
		CIVIL						
		COMMERCIAL						
		TOTAL						
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL						
		RESIDUAL OIL						
		GASOLINE			2			
		TOTAL			2			
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			1800	552			

Table 7.1
Continued

Table 7.2
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	7				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		3029	3282			
	POINT		642	1853			

Table 7.1

COUNTY Somerset
YEAR 2000

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		5	1			
		DISTILLATE OIL		225	868			
		RESIDUAL OIL		20	34			
		NATURAL GAS		26	1			
		WOOD						
		TOTAL		276	904			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL						
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL						
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	208	435			
			POINT	211	434			
		DISTILLATE OIL	AREA	15	71			
			POINT					
		NATURAL GAS	AREA	11	1			
			POINT	2	2			
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	234	507			
			POINT	213	436			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	1080	2242			
			POINT					
		DISTILLATE OIL	AREA	42	205			
			POINT					
		NATURAL GAS	AREA	9				
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	1131	2947			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	1641	3858			
			POINT	213	436			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION		AREA		1641	3858			
		POINT		213	436			

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING							
	FOOD/AGRICULTURE							
	PRIMARY METAL							
	SECONDARY METALS							
	MINERAL PRODUCTS			708				
	PETROLEUM INDUSTRY							
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			708				
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	1410	229			
			HEAVY DUTY	96	29			
			OFF HIGHWAY	1	1			
			TOTAL	1507	259			
		DIESEL	HEAVY DUTY	42	74			
			OFF HIGHWAY	10	9			
			RAIL	33	75			
			TOTAL	85	158			
	AIRCRAFT	MILITARY						
		CIVIL		8	6			
		COMMERCIAL						
		TOTAL		8	6			
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL						
		RESIDUAL OIL						
		GASOLINE						
		TOTAL						
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			1600	423			

Table 7.1
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	5				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		3246	4281			
	POINT		921	436			

COUNTY Union
YEAR 2000

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		19	3			
		DISTILLATE OIL		385	1482			
		RESIDUAL OIL		68	141			
		NATURAL GAS		45	3			
		WOOD						
		TOTAL		517	1629			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL		80	724			
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL		80	724			
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	15	66			
			POINT	1998	4087			
		DISTILLATE OIL	AREA	61	124			
			POINT	99	184			
		NATURAL GAS	AREA	9	1			
			POINT	37	36			
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	85	191			
			POINT	2134	4307			

Table 7.1

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	299	622			
			POINT					
		DISTILLATE OIL	AREA	12	57			
			POINT					
		NATURAL GAS	AREA	23	1			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	334	680			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	936	2500			
			POINT	2214	5031			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION			AREA	936	2500			
			POINT	2214	5031			

Table 7. 1
Continued

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING			573	12148			
	FOOD/AGRICULTURE							
	PRIMARY METAL							
	SECONDARY METALS				6			
	MINERAL PRODUCTS							
	PETROLEUM INDUSTRY							
	WOOD PRODUCTS			438	1791			
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			1011	13945			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCINERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	1609	259			
			HEAVY DUTY	112	37			
			OFF HIGHWAY					
			TOTAL	1721	296			
		DIESEL	HEAVY DUTY	87	154			
			OFF HIGHWAY	57	58			
			RAIL	65	149			
			TOTAL	209	361			
	AIRCRAFT	MILITARY						
		CIVIL		4	4			
		COMMERCIAL						
		TOTAL		4	4			
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL			318			
		RESIDUAL OIL		20	95			
		GASOLINE			1			
		TOTAL		20	414			
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			1954	1075			

Table 7.2
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	3				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		2893	3575			
	POINT		3225	18976			

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        MASTER GRID SYSTEM FOR BERGEN COUNTY, XMIN,YMIN=   561.  4510.

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                        2 2 2 2 1 1 2 2 2 2 2 2 1 1
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                    2 2 2 2 2 2 2 2             4 4 4 4
                    2 2 2 2 2 2                 4 4 4 4
                    2 2 2 2 2 2                 4 4 4 4
                        4 4 4 4
                        4 4 4 4
                        4 4 4 4
                        4 4 4 4
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AREA SOURCE EMISSIONS FOR BERGEN       COUNTY 1975     PAGE  1
          X           Y          SIDE          SO2          TSP
        (KM)        (KM)          (M)         (T/D)        (T/D)
        573.        4510.        4000.         0.024        0.019
        571.        4514.        2000.         0.034        0.035
        573.        4514.        2000.         0.112        0.095
        575.        4514.        2000.         0.045        0.028
        571.        4516.        2000.         0.085        0.049
        573.        4516.        2000.         0.249        0.220
        575.        4516.        2000.         0.097        0.085
        577.        4516.        2000.         0.054        0.041
        585.        4514.        4000.         0.061        0.053
        573.        4518.        2000.         0.154        0.138
        575.        4518.        2000.         0.234        0.211
        573.        4520.        2000.         0.131        0.119
        575.        4520.        2000.         0.266        0.256
        575.        4522.        2000.         0.288        0.291
        573.        4524.        2000.         0.061        0.064
        575.        4524.        2000.         0.234        0.239
        574.        4522.        1000.         0.070        0.063
        574.        4523.        1000.         0.199        0.172
        579.        4518.        2000.         0.105        0.108
        581.        4518.        2000.         0.121        0.135
        583.        4518.        2000.         0.192        0.189
        577.        4520.        2000.         0.343        0.227
        579.        4520.        2000.         0.137        0.138
        581.        4520.        2000.         0.190        0.218
        583.        4520.        2000.         0.211        0.209
        577.        4522.        2000.         0.153        0.147
        581.        4522.        2000.         0.151        0.156
        583.        4522.        2000.         0.146        0.148
        577.        4524.        2000.         0.246        0.246
        579.        4524.        2000.         0.319        0.323
        581.        4524.        2000.         0.162        0.157
        583.        4524.        2000.         0.106        0.100
        577.        4518.        1000.         0.038        0.034
        578.        4518.        1000.         0.044        0.040
        577.        4519.        1000.         0.094        0.080
        578.        4519.        1000.         0.091        0.092
        579.        4522.        1000.         0.044        0.046
        580.        4522.        1000.         0.034        0.036
        579.        4523.        1000.         0.053        0.057
        580.        4523.        1000.         0.048        0.052
        585.        4520.        2000.         0.160        0.161
        587.        4520.        2000.         0.013        0.011
        587.        4522.        2000.         0.044        0.047
        585.        4524.        2000.         0.162        0.155
        587.        4524.        2000.         0.083        0.080
        585.        4518.        1000.         0.079        0.069
        586.        4518.        1000.         0.228        0.215
        585.        4519.        1000.         0.036        0.034
```

AREA SOURCE EMISSIONS FOR BERGEN COUNTY 1975

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
586.	4519.	1000.	0.029	0.026
585.	4522.	1000.	0.051	0.055
586.	4522.	1000.	0.081	0.078
585.	4523.	1000.	0.051	0.048
586.	4523.	1000.	0.089	0.085
573.	4530.	4000.	0.460	0.425
573.	4526.	2000.	0.278	0.254
575.	4526.	2000.	0.211	0.207
573.	4528.	2000.	0.297	0.264
575.	4528.	2000.	0.242	0.221
571.	4530.	2000.	0.064	0.058
571.	4532.	2000.	0.092	0.080
577.	4526.	2000.	0.231	0.224
579.	4526.	2000.	0.272	0.261
581.	4526.	2000.	0.194	0.176
583.	4526.	2000.	0.192	0.169
577.	4528.	2000.	0.195	0.174
579.	4528.	2000.	0.167	0.157
581.	4528.	2000.	0.121	0.112
583.	4528.	2000.	0.172	0.160
577.	4530.	2000.	0.130	0.112
579.	4530.	2000.	0.112	0.102
581.	4530.	2000.	0.168	0.159
583.	4530.	2000.	0.189	0.176
577.	4532.	2000.	0.126	0.107
579.	4532.	2000.	0.110	0.102
581.	4532.	2000.	0.104	0.098
583.	4532.	2000.	0.152	0.138
589.	4526.	4000.	0.056	0.059
589.	4530.	4000.	0.094	0.081
585.	4526.	2000.	0.151	0.145
587.	4526.	2000.	0.082	0.071
585.	4528.	2000.	0.123	0.114
587.	4528.	2000.	0.039	0.033
585.	4530.	2000.	0.129	0.119
587.	4530.	2000.	0.052	0.045
585.	4532.	2000.	0.092	0.086
587.	4532.	2000.	0.052	0.046
561.	4534.	8000.	0.207	0.180
569.	4534.	4000.	0.159	0.143
573.	4534.	4000.	0.338	0.304
569.	4538.	4000.	0.208	0.190
573.	4538.	4000.	0.199	0.181
577.	4534.	4000.	0.309	0.275
581.	4534.	4000.	0.190	0.173
577.	4538.	4000.	0.214	0.193
581.	4538.	4000.	0.165	0.164
585.	4534.	4000.	0.237	0.206

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AREA SOURCE EMISSIONS FOR BERGEN        COUNTY 1975      PAGE  3
               X              Y            SIDE           SO2           TSP
             (KM)           (KM)           (M)           (T/D)         (T/D)
             589.           4534.         4000.          0.060         0.059
             585.           4538.         4000.          0.237         0.207
             589.           4538.         4000.          0.064         0.054
             561.           4542.         8000.          0.146         0.134
             569.           4542.         8000.          0.554         0.500
             577.           4542.         4000.          0.185         0.165
             581.           4542.         4000.          0.134         0.129
             577.           4546.         4000.          0.025         0.022
             585.           4542.         4000.          0.017         0.015
             565.           4550.         4000.          0.008         0.006
             569.           4550.         4000.          0.181         0.194
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AREA SOURCE EMISSIONS FOR BERGEN        COUNTY 1980      PAGE   1
         X           Y         SIDE           SO2          TSP
       (KM)        (KM)         (M)          (T/D)        (T/D)
       573.       4510.       4000.          0.025        0.024
       571.       4514.       2000.          0.035        0.040
       573.       4514.       2000.          0.122        0.131
       575.       4514.       2000.          0.052        0.058
       571.       4516.       2000.          0.093        0.052
       573.       4516.       2000.          0.255        0.246
       575.       4516.       2000.          0.106        0.141
       577.       4516.       2000.          0.058        0.055
       585.       4514.       4000.          0.061        0.060
       573.       4518.       2000.          0.160        0.156
       575.       4518.       2000.          0.239        0.246
       573.       4520.       2000.          0.135        0.136
       575.       4520.       2000.          0.274        0.288
       575.       4522.       2000.          0.286        0.316
       573.       4524.       2000.          0.063        0.072
       575.       4524.       2000.          0.241        0.268
       574.       4522.       1000.          0.071        0.072
       574.       4523.       1000.          0.195        0.192
       579.       4518.       2000.          0.108        0.138
       581.       4518.       2000.          0.130        0.161
       583.       4518.       2000.          0.201        0.223
       577.       4520.       2000.          0.359        0.280
       579.       4520.       2000.          0.143        0.168
       581.       4520.       2000.          0.200        0.256
       583.       4520.       2000.          0.219        0.254
       577.       4522.       2000.          0.162        0.165
       581.       4522.       2000.          0.157        0.190
       583.       4522.       2000.          0.151        0.179
       577.       4524.       2000.          0.251        0.282
       579.       4524.       2000.          0.317        0.352
       581.       4524.       2000.          0.168        0.181
       583.       4524.       2000.          0.112        0.120
       577.       4518.       1000.          0.038        0.038
       578.       4518.       1000.          0.043        0.045
       577.       4519.       1000.          0.098        0.094
       578.       4519.       1000.          0.094        0.121
       579.       4522.       1000.          0.047        0.053
       580.       4522.       1000.          0.036        0.045
       579.       4523.       1000.          0.055        0.061
       580.       4523.       1000.          0.050        0.061
       585.       4520.       2000.          0.168        0.212
       587.       4520.       2000.          0.014        0.016
       587.       4522.       2000.          0.048        0.060
       585.       4524.       2000.          0.175        0.205
       587.       4524.       2000.          0.093        0.112
       585.       4518.       1000.          0.080        0.079
       586.       4518.       1000.          0.225        0.315
       585.       4519.       1000.          0.037        0.042
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AREA SOURCE EMISSIONS FOR BERGEN        COUNTY 1980     PAGE  2
        X            Y          SIDE          SO2          TSP
      (KM)         (KM)          (M)         (T/D)        (T/D)
      586.         4519.       1000.         0.030        0.032
      585.         4522.       1000.         0.054        0.077
      586.         4522.       1000.         0.085        0.111
      585.         4523.       1000.         0.053        0.063
      586.         4523.       1000.         0.095        0.123
      573.         4530.       4000.         0.476        0.475
      573.         4526.       2000.         0.277        0.273
      575.         4526.       2000.         0.217        0.237
      573.         4528.       2000.         0.297        0.284
      575.         4528.       2000.         0.239        0.234
      571.         4530.       2000.         0.064        0.065
      571.         4532.       2000.         0.092        0.086
      577.         4526.       2000.         0.237        0.258
      579.         4526.       2000.         0.270        0.303
      581.         4526.       2000.         0.198        0.196
      583.         4526.       2000.         0.199        0.197
      577.         4528.       2000.         0.200        0.191
      579.         4528.       2000.         0.168        0.183
      581.         4528.       2000.         0.125        0.126
      583.         4528.       2000.         0.177        0.191
      577.         4530.       2000.         0.135        0.129
      579.         4530.       2000.         0.120        0.120
      581.         4530.       2000.         0.173        0.174
      583.         4530.       2000.         0.196        0.202
      577.         4532.       2000.         0.129        0.122
      579.         4532.       2000.         0.116        0.115
      581.         4532.       2000.         0.106        0.105
      583.         4532.       2000.         0.157        0.152
      589.         4526.       4000.         0.060        0.086
      589.         4530.       4000.         0.104        0.129
      585.         4526.       2000.         0.160        0.177
      587.         4526.       2000.         0.085        0.080
      585.         4528.       2000.         0.126        0.133
      587.         4528.       2000.         0.044        0.044
      585.         4530.       2000.         0.133        0.136
      587.         4530.       2000.         0.057        0.055
      585.         4532.       2000.         0.098        0.098
      587.         4532.       2000.         0.058        0.057
      561.         4534.       8000.         0.227        0.228
      569.         4534.       4000.         0.166        0.158
      573.         4534.       4000.         0.350        0.344
      569.         4538.       4000.         0.220        0.212
      573.         4538.       4000.         0.209        0.196
      577.         4534.       4000.         0.324        0.313
      581.         4534.       4000.         0.204        0.198
      577.         4538.       4000.         0.226        0.225
      581.         4538.       4000.         0.172        0.175
      585.         4534.       4000.         0.256        0.246
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AREA SOURCE EMISSIONS FOR BERGEN        COUNTY 1980      PAGE  3
             X            Y         SIDE        SO2         TSP
           (KM)         (KM)         (M)       (T/D)       (T/D)
           589.        4534.       4000.       0.072       0.098
           585.        4538.       4000.       0.248       0.234
           589.        4538.       4000.       0.076       0.093
           561.        4542.       8000.       0.157       0.159
           569.        4542.       8000.       0.588       0.578
           577.        4542.       4000.       0.201       0.200
           581.        4542.       4000.       0.142       0.135
           577.        4546.       4000.       0.026       0.027
           585.        4542.       4000.       0.021       0.022
           565.        4550.       4000.       0.008       0.010
           569.        4550.       4000.       0.191       0.218
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AREA SOURCE EMISSIONS FOR BERGEN        COUNTY 1985     PAGE  1
         X            Y          SIDE           SO2           TSP
       (KM)         (KM)          (M)          (T/D)         (T/D)
       573.         4510.        4000.         0.029         0.029
       571.         4514.        2000.         0.037         0.038
       573.         4514.        2000.         0.158         0.162
       575.         4514.        2000.         0.083         0.090
       571.         4516.        2000.         0.099         0.050
       573.         4516.        2000.         0.271         0.247
       575.         4516.        2000.         0.119         0.161
       577.         4516.        2000.         0.062         0.065
       585.         4514.        4000.         0.063         0.059
       573.         4518.        2000.         0.176         0.160
       575.         4518.        2000.         0.232         0.237
       573.         4520.        2000.         0.143         0.131
       575.         4520.        2000.         0.294         0.292
       575.         4522.        2000.         0.292         0.302
       573.         4524.        2000.         0.065         0.067
       575.         4524.        2000.         0.251         0.251
       574.         4522.        1000.         0.072         0.066
       574.         4523.        1000.         0.193         0.172
       579.         4518.        2000.         0.113         0.137
       581.         4518.        2000.         0.150         0.185
       583.         4518.        2000.         0.216         0.216
       577.         4520.        2000.         0.433         0.357
       579.         4520.        2000.         0.161         0.174
       581.         4520.        2000.         0.226         0.269
       583.         4520.        2000.         0.236         0.235
       577.         4522.        2000.         0.182         0.174
       581.         4522.        2000.         0.171         0.178
       583.         4522.        2000.         0.161         0.161
       577.         4524.        2000.         0.262         0.257
       579.         4524.        2000.         0.322         0.327
       581.         4524.        2000.         0.178         0.168
       583.         4524.        2000.         0.132         0.138
       577.         4518.        1000.         0.021         0.030
       578.         4518.        1000.         0.025         0.034
       577.         4519.        1000.         0.074         0.092
       578.         4519.        1000.         0.052         0.097
       579.         4522.        1000.         0.053         0.056
       580.         4522.        1000.         0.038         0.042
       579.         4523.        1000.         0.058         0.062
       580.         4523.        1000.         0.053         0.058
       585.         4520.        2000.         0.175         0.173
       587.         4520.        2000.         0.015         0.015
       587.         4522.        2000.         0.056         0.055
       585.         4524.        2000.         0.197         0.197
       587.         4524.        2000.         0.107         0.107
       585.         4518.        1000.         0.083         0.077
       586.         4518.        1000.         0.234         0.224
       585.         4519.        1000.         0.040         0.039
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AREA SOURCE EMISSIONS FOR BERGEN COUNTY 1985 PAGE 2

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
586.	4519.	1000.	0.033	0.030
585.	4522.	1000.	0.058	0.062
586.	4522.	1000.	0.093	0.092
585.	4523.	1000.	0.057	0.055
586.	4523.	1000.	0.106	0.104
573.	4530.	4000.	0.499	0.472
573.	4526.	2000.	0.281	0.262
575.	4526.	2000.	0.229	0.230
573.	4528.	2000.	0.302	0.276
575.	4528.	2000.	0.245	0.234
571.	4530.	2000.	0.066	0.061
571.	4532.	2000.	0.094	0.085
577.	4526.	2000.	0.257	0.249
579.	4526.	2000.	0.277	0.262
581.	4526.	2000.	0.212	0.193
583.	4526.	2000.	0.216	0.202
577.	4528.	2000.	0.211	0.196
579.	4528.	2000.	0.178	0.165
581.	4528.	2000.	0.133	0.122
583.	4528.	2000.	0.186	0.174
577.	4530.	2000.	0.145	0.136
579.	4530.	2000.	0.133	0.128
581.	4530.	2000.	0.179	0.167
583.	4530.	2000.	0.206	0.193
577.	4532.	2000.	0.137	0.125
579.	4532.	2000.	0.125	0.120
581.	4532.	2000.	0.112	0.104
583.	4532.	2000.	0.162	0.148
589.	4526.	4000.	0.066	0.070
589.	4530.	4000.	0.129	0.134
585.	4526.	2000.	0.172	0.173
587.	4526.	2000.	0.091	0.081
585.	4528.	2000.	0.130	0.120
587.	4528.	2000.	0.050	0.049
585.	4530.	2000.	0.142	0.131
587.	4530.	2000.	0.063	0.059
585.	4532.	2000.	0.105	0.100
587.	4532.	2000.	0.069	0.064
561.	4534.	8000.	0.294	0.271
569.	4534.	4000.	0.175	0.160
573.	4534.	4000.	0.374	0.346
569.	4538.	4000.	0.244	0.221
573.	4538.	4000.	0.227	0.206
577.	4534.	4000.	0.350	0.327
581.	4534.	4000.	0.222	0.212
577.	4538.	4000.	0.251	0.239
581.	4538.	4000.	0.192	0.184
585.	4534.	4000.	0.298	0.278

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AREA SOURCE EMISSIONS FOR BERGEN        COUNTY 1985     PAGE  3
          X            Y          SIDE          SO2         TSP
        (KM)         (KM)          (M)         (T/D)       (T/D)
        589.         4534.        4000.         0.094       0.102
        585.         4538.        4000.         0.272       0.255
        589.         4538.        4000.         0.102       0.110
        561.         4542.        8000.         0.191       0.181
        569.         4542.        8000.         0.656       0.624
        577.         4542.        4000.         0.240       0.226
        581.         4542.        4000.         0.148       0.136
        577.         4546.        4000.         0.030       0.028
        585.         4542.        4000.         0.026       0.028
        565.         4550.        4000.         0.010       0.010
        569.         4550.        4000.         0.195       0.215
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AREA SOURCE EMISSIONS FOR BERGEN        COUNTY 2000      PAGE   1
           X          Y          SIDE             SO2          TSP
         (KM)       (KM)          (M)           (T/D)        (T/D)
         573.       4510.       4000.           0.035        0.033
         571.       4514.       2000.           0.041        0.040
         573.       4514.       2000.           0.220        0.223
         575.       4514.       2000.           0.128        0.131
         571.       4516.       2000.           0.123        0.054
         573.       4516.       2000.           0.312        0.268
         575.       4516.       2000.           0.170        0.223
         577.       4516.       2000.           0.084        0.087
         585.       4514.       4000.           0.069        0.061
         573.       4518.       2000.           0.219        0.189
         575.       4518.       2000.           0.270        0.260
         573.       4520.       2000.           0.171        0.148
         575.       4520.       2000.           0.343        0.322
         575.       4522.       2000.           0.308        0.304
         573.       4524.       2000.           0.070        0.067
         575.       4524.       2000.           0.272        0.256
         574.       4522.       1000.           0.082        0.071
         574.       4523.       1000.           0.207        0.173
         579.       4518.       2000.           0.136        0.161
         581.       4518.       2000.           0.182        0.202
         583.       4518.       2000.           0.241        0.228
         577.       4520.       2000.           0.592        0.488
         579.       4520.       2000.           0.180        0.185
         581.       4520.       2000.           0.271        0.304
         583.       4520.       2000.           0.274        0.257
         577.       4522.       2000.           0.231        0.212
         581.       4522.       2000.           0.199        0.198
         583.       4522.       2000.           0.182        0.170
         577.       4524.       2000.           0.295        0.270
         579.       4524.       2000.           0.338        0.324
         581.       4524.       2000.           0.204        0.181
         583.       4524.       2000.           0.168        0.163
         577.       4518.       1000.           0.024        0.031
         578.       4518.       1000.           0.028        0.037
         577.       4519.       1000.           0.093        0.106
         578.       4519.       1000.           0.064        0.115
         579.       4522.       1000.           0.064        0.064
         580.       4522.       1000.           0.042        0.043
         579.       4523.       1000.           0.063        0.063
         580.       4523.       1000.           0.059        0.062
         585.       4520.       2000.           0.192        0.175
         587.       4520.       2000.           0.018        0.016
         587.       4522.       2000.           0.068        0.062
         585.       4524.       2000.           0.235        0.223
         587.       4524.       2000.           0.126        0.120
         585.       4518.       1000.           0.092        0.081
         586.       4518.       1000.           0.263        0.237
         585.       4519.       1000.           0.047        0.042
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AREA SOURCE EMISSIONS FOR BERGEN         COUNTY 2000      PAGE  2
            X            Y          SIDE          SO2          TSP
          (KM)         (KM)          (M)         (T/D)        (T/D)
          586.         4519.        1000.        0.039        0.034
          585.         4522.        1000.        0.066        0.066
          586.         4522.        1000.        0.116        0.106
          585.         4523.        1000.        0.068        0.061
          586.         4523.        1000.        0.130        0.120
          573.         4530.        4000.        0.557        0.488
          573.         4526.        2000.        0.303        0.264
          575.         4526.        2000.        0.260        0.243
          573.         4528.        2000.        0.324        0.277
          575.         4528.        2000.        0.259        0.233
          571.         4530.        2000.        0.072        0.062
          571.         4532.        2000.        0.102        0.085
          577.         4526.        2000.        0.317        0.287
          579.         4526.        2000.        0.305        0.268
          581.         4526.        2000.        0.258        0.223
          583.         4526.        2000.        0.266        0.230
          577.         4528.        2000.        0.246        0.215
          579.         4528.        2000.        0.199        0.175
          581.         4528.        2000.        0.149        0.129
          583.         4528.        2000.        0.204        0.179
          577.         4530.        2000.        0.169        0.149
          579.         4530.        2000.        0.156        0.143
          581.         4530.        2000.        0.196        0.169
          583.         4530.        2000.        0.226        0.199
          577.         4532.        2000.        0.155        0.136
          579.         4532.        2000.        0.141        0.128
          581.         4532.        2000.        0.124        0.106
          583.         4532.        2000.        0.179        0.152
          589.         4526.        4000.        0.076        0.075
          589.         4530.        4000.        0.163        0.159
          585.         4526.        2000.        0.194        0.179
          587.         4526.        2000.        0.102        0.086
          585.         4528.        2000.        0.144        0.121
          587.         4528.        2000.        0.062        0.056
          585.         4530.        2000.        0.156        0.135
          587.         4530.        2000.        0.074        0.065
          585.         4532.        2000.        0.120        0.104
          587.         4532.        2000.        0.083        0.077
          561.         4534.        8000.        0.370        0.336
          569.         4534.        4000.        0.197        0.167
          573.         4534.        4000.        0.426        0.368
          569.         4538.        4000.        0.278        0.238
          573.         4538.        4000.        0.260        0.221
          577.         4534.        4000.        0.397        0.350
          581.         4534.        4000.        0.261        0.232
          577.         4538.        4000.        0.291        0.261
          581.         4538.        4000.        0.223        0.201
          585.         4534.        4000.        0.360        0.324
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AREA SOURCE EMISSIONS FOR BERGEN        COUNTY 2000      PAGE  3
           X            Y          SIDE           SO2          TSP
         (KM)         (KM)          (M)          (T/D)        (T/D)
         589.         4534.        4000.         0.124        0.129
         585.         4538.        4000.         0.312        0.277
         589.         4538.        4000.         0.140        0.143
         561.         4542.        8000.         0.238        0.217
         569.         4542.        8000.         0.793        0.708
         577.         4542.        4000.         0.301        0.276
         581.         4542.        4000.         0.169        0.145
         577.         4546.        4000.         0.038        0.032
         585.         4542.        4000.         0.034        0.033
         565.         4550.        4000.         0.013        0.014
         569.         4550.        4000.         0.215        0.221
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MASTER GRID SYSTEM FOR ESSEXCOUNTY, XMIN,YMIN=   552.  4504.

        4 4 4 4
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4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
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4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
        4 4 4 4 4 4 4 4 4 4 4 4 2 2
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        4 4 4 4 4 4 4 4 4 4 4 4 2 2 2 2
        4 4 4 4 4 4 4 4 4 4 4 4 2 2 2 2
4 4 4 4 4 4 4 4 4 4 4 4 2 2 2 2 2 2 2 2 2 2
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4 4 4 4 4 4 4 4 4 4 4 4 2 2 2 2 2 2 2 2 2 2
4 4 4 4 4 4 4 4 4 4 4 4 2 2 2 2 2 2 2 2 2 2
4 4 4 4 4 4 4 4 2 2 2 2 2 2 1 1 1 1 2 2
4 4 4 4 4 4 4 4 2 2 2 2 2 2 1 1 1 1 2 2
4 4 4 4 4 4 4 4 2 2 2 2 1 1 1 1 1 1 1
4 4 4 4 4 4 4 4 2 2 2 2 1 1 1 1 1 1 1
4 4 4 4 4 4 4 4 2 2 2 2 1 1 1 1 1 1
4 4 4 4 4 4 4 4 2 2 2 2 1 1 1 1 1 1
4 4 4 4 4 4 4 4 2 2 1 1 1 1 1 1 1 1 1 1 2 2
4 4 4 4 4 4 4 4 2 2 1 1 1 1 1 1 1 1 1 1 2 2
                      1 1 1 1 1 1 1 1 1 2 2 2 2
                            1 1 1 1 1 1 2 2 2 2
                            2 2 2 2 2 2 2 2 2 2
                            2 2 2 2 2 2 2 2 2 2
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AREA SOURCE EMISSIONS FOR ESSEX COUNTY 1975 PAGE 1

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
563.	4507.	1000.	0.079	0.070
566.	4504.	2000.	0.087	0.076
568.	4504.	2000.	0.148	0.116
570.	4504.	2000.	0.177	0.147
566.	4506.	1000.	0.105	0.091
567.	4506.	1000.	0.081	0.072
568.	4506.	1000.	0.099	0.084
569.	4506.	1000.	0.084	0.057
570.	4506.	1000.	0.104	0.073
571.	4506.	1000.	0.041	0.036
564.	4507.	1000.	0.080	0.068
565.	4507.	1000.	0.102	0.092
566.	4507.	1000.	0.120	0.103
567.	4507.	1000.	0.210	0.177
568.	4507.	1000.	0.118	0.120
569.	4507.	1000.	0.152	0.133
570.	4507.	1000.	0.090	0.077
571.	4507.	1000.	0.059	0.069
572.	4504.	2000.	0.280	0.116
574.	4504.	2000.	0.025	0.021
572.	4506.	2000.	0.261	0.156
574.	4506.	2000.	0.140	0.034
552.	4508.	4000.	0.042	0.034
552.	4512.	4000.	0.086	0.069
556.	4508.	4000.	0.194	0.157
556.	4512.	4000.	0.181	0.151
560.	4508.	2000.	0.158	0.123
560.	4510.	2000.	0.094	0.076
562.	4510.	2000.	0.233	0.189
560.	4512.	2000.	0.052	0.041
562.	4512.	2000.	0.241	0.194
560.	4514.	2000.	0.048	0.040
562.	4514.	2000.	0.148	0.114
562.	4508.	1000.	0.023	0.019
563.	4508.	1000.	0.085	0.074
562.	4509.	1000.	0.065	0.054
563.	4509.	1000.	0.062	0.053
564.	4514.	2000.	0.236	0.201
570.	4514.	2000.	0.382	0.305
564.	4508.	1000.	0.090	0.079
565.	4508.	1000.	0.139	0.130
566.	4508.	1000.	0.151	0.128
567.	4508.	1000.	0.204	0.178
568.	4508.	1000.	0.157	0.147
569.	4508.	1000.	0.232	0.209
570.	4508.	1000.	0.146	0.129
571.	4508.	1000.	0.137	0.122
564.	4509.	1000.	0.101	0.079

AREA SOURCE EMISSIONS FOR ESSEX COUNTY 1975 PAGE 2

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
565.	4509.	1000.	0.111	0.088
566.	4509.	1000.	0.153	0.128
567.	4509.	1000.	0.209	0.184
568.	4509.	1000.	0.278	0.239
569.	4509.	1000.	0.455	0.338
570.	4509.	1000.	0.358	0.264
571.	4509.	1000.	0.123	0.109
564.	4510.	1000.	0.128	0.100
565.	4510.	1000.	0.107	0.084
566.	4510.	1000.	0.129	0.109
567.	4510.	1000.	0.128	0.106
568.	4510.	1000.	0.272	0.221
569.	4510.	1000.	0.428	0.329
564.	4511.	1000.	0.068	0.053
565.	4511.	1000.	0.163	0.130
566.	4511.	1000.	0.153	0.129
567.	4511.	1000.	0.121	0.103
568.	4511.	1000.	0.172	0.160
569.	4511.	1000.	0.126	0.110
564.	4512.	1000.	0.131	0.101
565.	4512.	1000.	0.152	0.121
566.	4512.	1000.	0.121	0.101
567.	4512.	1000.	0.102	0.084
568.	4512.	1000.	0.161	0.133
569.	4512.	1000.	0.167	0.137
570.	4512.	1000.	0.113	0.100
564.	4513.	1000.	0.094	0.077
565.	4513.	1000.	0.102	0.086
566.	4513.	1000.	0.083	0.070
567.	4513.	1000.	0.132	0.110
568.	4513.	1000.	0.089	0.074
569.	4513.	1000.	0.094	0.079
570.	4513.	1000.	0.075	0.069
566.	4514.	1000.	0.073	0.059
567.	4514.	1000.	0.096	0.085
568.	4514.	1000.	0.075	0.069
569.	4514.	1000.	0.101	0.084
566.	4515.	1000.	0.069	0.056
567.	4515.	1000.	0.064	0.057
568.	4515.	1000.	0.057	0.051
569.	4515.	1000.	0.085	0.067
572.	4508.	2000.	0.612	0.500
552.	4516.	4000.	0.057	0.048
556.	4516.	4000.	0.249	0.191
560.	4516.	4000.	0.225	0.185
556.	4520.	4000.	0.159	0.131
560.	4520.	4000.	0.374	0.300
564.	4520.	4000.	0.369	0.299

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AREA SOURCE EMISSIONS FOR ESSEX          COUNTY 1975     PAGE  3
         X            Y          SIDE          SO2          TSP
       (KM)         (KM)          (M)         (T/D)        (T/D)
       564.         4516.        2000.         0.196        0.166
       566.         4516.        2000.         0.211        0.171
       568.         4516.        2000.         0.223        0.185
       570.         4516.        2000.         0.217        0.187
       564.         4518.        2000.         0.137        0.116
       566.         4518.        2000.         0.139        0.116
       568.         4518.        2000.         0.137        0.115
       570.         4518.        2000.         0.215        0.172
       568.         4520.        2000.         0.155        0.127
       570.         4520.        2000.         0.193        0.152
       568.         4522.        2000.         0.020        0.018
       572.         4516.        2000.         0.062        0.057
       572.         4518.        2000.         0.094        0.085
       552.         4524.        4000.         0.002        0.001
       556.         4524.        4000.         0.127        0.107
       560.         4524.        4000.         0.273        0.218
       556.         4528.        4000.         0.005        0.003
       564.         4524.        4000.         0.090        0.070
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AREA SOURCE EMISSIONS FOR ESSEX          COUNTY 1980       PAGE  1
          X            Y           SIDE             SO2          TSP
        (KM)         (KM)           (M)            (T/D)        (T/D)
        563.         4507.        1000.            0.080        0.088
        566.         4504.        2000.            0.093        0.091
        568.         4504.        2000.            0.160        0.128
        570.         4504.        2000.            0.189        0.153
        566.         4506.        1000.            0.107        0.115
        567.         4506.        1000.            0.085        0.092
        568.         4506.        1000.            0.107        0.120
        569.         4506.        1000.            0.093        0.062
        570.         4506.        1000.            0.114        0.078
        571.         4506.        1000.            0.044        0.040
        564.         4507.        1000.            0.086        0.084
        565.         4507.        1000.            0.107        0.115
        566.         4507.        1000.            0.118        0.130
        567.         4507.        1000.            0.211        0.225
        568.         4507.        1000.            0.127        0.159
        569.         4507.        1000.            0.162        0.174
        570.         4507.        1000.            0.096        0.091
        571.         4507.        1000.            0.063        0.078
        572.         4504.        2000.            0.327        0.132
        574.         4504.        2000.            0.027        0.026
        572.         4506.        2000.            0.273        0.174
        574.         4506.        2000.            0.169        0.041
        552.         4508.        4000.            0.046        0.039
        552.         4512.        4000.            0.090        0.077
        556.         4508.        4000.            0.206        0.174
        556.         4512.        4000.            0.187        0.165
        560.         4508.        2000.            0.173        0.139
        560.         4510.        2000.            0.102        0.088
        562.         4510.        2000.            0.247        0.238
        560.         4512.        2000.            0.052        0.048
        562.         4512.        2000.            0.250        0.236
        560.         4514.        2000.            0.049        0.047
        562.         4514.        2000.            0.160        0.148
        562.         4508.        1000.            0.024        0.021
        563.         4508.        1000.            0.086        0.094
        562.         4509.        1000.            0.065        0.068
        563.         4509.        1000.            0.062        0.068
        564.         4514.        2000.            0.239        0.252
        570.         4514.        2000.            0.419        0.370
        564.         4508.        1000.            0.091        0.100
        565.         4508.        1000.            0.138        0.165
        566.         4508.        1000.            0.149        0.160
        567.         4508.        1000.            0.199        0.232
        568.         4508.        1000.            0.160        0.193
        569.         4508.        1000.            0.245        0.268
        570.         4508.        1000.            0.154        0.153
        571.         4508.        1000.            0.145        0.144
        564.         4509.        1000.            0.102        0.099
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AREA SOURCE EMISSIONS FOR ESSEX        COUNTY 1980     PAGE  2
              X           Y          SIDE          SO2          TSP
            (KM)        (KM)          (M)         (T/D)        (T/D)
            565.        4509.        1000.        0.111        0.107
            566.        4509.        1000.        0.151        0.156
            567.        4509.        1000.        0.202        0.240
            568.        4509.        1000.        0.282        0.309
            569.        4509.        1000.        0.512        0.393
            570.        4509.        1000.        0.403        0.305
            571.        4509.        1000.        0.129        0.129
            564.        4510.        1000.        0.132        0.114
            565.        4510.        1000.        0.109        0.095
            566.        4510.        1000.        0.130        0.132
            567.        4510.        1000.        0.138        0.131
            568.        4510.        1000.        0.301        0.274
            569.        4510.        1000.        0.479        0.391
            564.        4511.        1000.        0.073        0.062
            565.        4511.        1000.        0.162        0.170
            566.        4511.        1000.        0.158        0.166
            567.        4511.        1000.        0.132        0.125
            568.        4511.        1000.        0.180        0.203
            569.        4511.        1000.        0.134        0.149
            564.        4512.        1000.        0.143        0.137
            565.        4512.        1000.        0.152        0.164
            566.        4512.        1000.        0.122        0.139
            567.        4512.        1000.        0.101        0.097
            568.        4512.        1000.        0.165        0.162
            569.        4512.        1000.        0.181        0.182
            570.        4512.        1000.        0.115        0.126
            564.        4513.        1000.        0.102        0.104
            565.        4513.        1000.        0.104        0.115
            566.        4513.        1000.        0.083        0.103
            567.        4513.        1000.        0.132        0.143
            568.        4513.        1000.        0.088        0.085
            569.        4513.        1000.        0.092        0.097
            570.        4513.        1000.        0.074        0.090
            566.        4514.        1000.        0.078        0.077
            567.        4514.        1000.        0.102        0.101
            568.        4514.        1000.        0.074        0.083
            569.        4514.        1000.        0.102        0.101
            566.        4515.        1000.        0.074        0.066
            567.        4515.        1000.        0.068        0.068
            568.        4515.        1000.        0.061        0.061
            569.        4515.        1000.        0.095        0.080
            572.        4508.        2000.        0.634        0.546
            552.        4516.        4000.        0.063        0.057
            556.        4516.        4000.        0.270        0.233
            560.        4516.        4000.        0.240        0.223
            556.        4520.        4000.        0.166        0.159
            560.        4520.        4000.        0.406        0.365
            564.        4520.        4000.        0.388        0.341
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AREA SOURCE EMISSIONS FOR ESSEX          COUNTY 1980       PAGE   3
              X              Y           SIDE              SO2             TSP
            (KM)           (KM)           (M)             (T/D)           (T/D)
            564.           4516.         2000.            0.211           0.206
            566.           4516.         2000.            0.231           0.210
            568.           4516.         2000.            0.238           0.217
            570.           4516.         2000.            0.230           0.213
            564.           4518.         2000.            0.145           0.139
            566.           4518.         2000.            0.142           0.128
            568.           4518.         2000.            0.139           0.130
            570.           4518.         2000.            0.231           0.199
            568.           4520.         2000.            0.168           0.143
            570.           4520.         2000.            0.219           0.173
            568.           4522.         2000.            0.021           0.020
            572.           4516.         2000.            0.069           0.066
            572.           4518.         2000.            0.105           0.100
            552.           4524.         4000.            0.002           0.001
            556.           4524.         4000.            0.135           0.125
            560.           4524.         4000.            0.302           0.265
            556.           4528.         4000.            0.005           0.005
            564.           4524.         4000.            0.100           0.085
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AREA SOURCE EMISSIONS FOR ESSEX           COUNTY 1985      PAGE   1
           X            Y          SIDE           SO2          TSP
         (KM)         (KM)          (M)          (T/D)        (T/D)
         563.         4507.       1000.          0.085        0.072
         566.         4504.       2000.          0.097        0.088
         568.         4504.       2000.          0.177        0.131
         570.         4504.       2000.          0.202        0.159
         566.         4506.       1000.          0.113        0.092
         567.         4506.       1000.          0.091        0.082
         568.         4506.       1000.          0.127        0.124
         569.         4506.       1000.          0.108        0.069
         570.         4506.       1000.          0.129        0.083
         571.         4506.       1000.          0.045        0.041
         564.         4507.       1000.          0.088        0.073
         565.         4507.       1000.          0.111        0.096
         566.         4507.       1000.          0.123        0.101
         567.         4507.       1000.          0.221        0.180
         568.         4507.       1000.          0.145        0.156
         569.         4507.       1000.          0.174        0.157
         570.         4507.       1000.          0.104        0.088
         571.         4507.       1000.          0.068        0.077
         572.         4504.       2000.          0.351        0.130
         574.         4504.       2000.          0.028        0.023
         572.         4506.       2000.          0.282        0.179
         574.         4506.       2000.          0.189        0.040
         552.         4508.       4000.          0.051        0.041
         552.         4512.       4000.          0.106        0.086
         556.         4508.       4000.          0.220        0.176
         556.         4512.       4000.          0.214        0.181
         560.         4508.       2000.          0.180        0.138
         560.         4510.       2000.          0.110        0.087
         562.         4510.       2000.          0.259        0.205
         560.         4512.       2000.          0.059        0.049
         562.         4512.       2000.          0.268        0.214
         560.         4514.       2000.          0.058        0.051
         562.         4514.       2000.          0.186        0.159
         562.         4508.       1000.          0.025        0.020
         563.         4508.       1000.          0.091        0.077
         562.         4509.       1000.          0.069        0.056
         563.         4509.       1000.          0.067        0.055
         564.         4514.       2000.          0.260        0.217
         570.         4514.       2000.          0.433        0.328
         564.         4508.       1000.          0.097        0.081
         565.         4508.       1000.          0.147        0.130
         566.         4508.       1000.          0.156        0.127
         567.         4508.       1000.          0.209        0.177
         568.         4508.       1000.          0.169        0.154
         569.         4508.       1000.          0.256        0.228
         570.         4508.       1000.          0.161        0.142
         571.         4508.       1000.          0.148        0.129
         564.         4509.       1000.          0.109        0.082
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AREA SOURCE EMISSIONS FOR ESSEX          COUNTY 1985     PAGE  2
           X             Y           SIDE          SO2         TSP
         (KM)          (KM)          (M)          (T/D)       (T/D)
         565.          4509.        1000.         0.117       0.088
         566.          4509.        1000.         0.158       0.125
         567.          4509.        1000.         0.214       0.183
         568.          4509.        1000.         0.292       0.245
         569.          4509.        1000.         0.512       0.380
         570.          4509.        1000.         0.402       0.297
         571.          4509.        1000.         0.131       0.115
         564.          4510.        1000.         0.139       0.102
         565.          4510.        1000.         0.114       0.084
         566.          4510.        1000.         0.135       0.107
         567.          4510.        1000.         0.140       0.113
         568.          4510.        1000.         0.304       0.242
         569.          4510.        1000.         0.479       0.365
         564.          4511.        1000.         0.075       0.055
         565.          4511.        1000.         0.169       0.129
         566.          4511.        1000.         0.163       0.132
         567.          4511.        1000.         0.134       0.109
         568.          4511.        1000.         0.186       0.168
         569.          4511.        1000.         0.137       0.115
         564.          4512.        1000.         0.145       0.110
         565.          4512.        1000.         0.157       0.121
         566.          4512.        1000.         0.126       0.102
         567.          4512.        1000.         0.106       0.082
         568.          4512.        1000.         0.170       0.134
         569.          4512.        1000.         0.183       0.144
         570.          4512.        1000.         0.122       0.105
         564.          4513.        1000.         0.104       0.083
         565.          4513.        1000.         0.109       0.089
         566.          4513.        1000.         0.088       0.072
         567.          4513.        1000.         0.139       0.111
         568.          4513.        1000.         0.093       0.073
         569.          4513.        1000.         0.098       0.078
         570.          4513.        1000.         0.078       0.067
         566.          4514.        1000.         0.080       0.063
         567.          4514.        1000.         0.105       0.091
         568.          4514.        1000.         0.081       0.070
         569.          4514.        1000.         0.108       0.086
         566.          4515.        1000.         0.077       0.060
         567.          4515.        1000.         0.070       0.061
         568.          4515.        1000.         0.063       0.055
         569.          4515.        1000.         0.096       0.074
         572.          4508.        2000.         0.654       0.549
         552.          4516.        4000.         0.075       0.067
         556.          4516.        4000.         0.339       0.302
         560.          4516.        4000.         0.276       0.235
         556.          4520.        4000.         0.197       0.174
         560.          4520.        4000.         0.452       0.376
         564.          4520.        4000.         0.424       0.337
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AREA SOURCE EMISSIONS FOR ESSEX          COUNTY 1985     PAGE  3
          X           Y          SIDE           SO2          TSP
        (KM)        (KM)          (M)          (T/D)        (T/D)
        564.        4516.        2000.         0.218        0.176
        566.        4516.        2000.         0.238        0.186
        568.        4516.        2000.         0.252        0.202
        570.        4516.        2000.         0.244        0.200
        564.        4518.        2000.         0.151        0.122
        566.        4518.        2000.         0.151        0.119
        568.        4518.        2000.         0.154        0.126
        570.        4518.        2000.         0.241        0.189
        568.        4520.        2000.         0.179        0.145
        570.        4520.        2000.         0.222        0.171
        568.        4522.        2000.         0.024        0.020
        572.        4516.        2000.         0.072        0.064
        572.        4518.        2000.         0.114        0.101
        552.        4524.        4000.         0.002        0.002
        556.        4524.        4000.         0.156        0.146
        560.        4524.        4000.         0.345        0.297
        556.        4528.        4000.         0.007        0.007
        564.        4524.        4000.         0.110        0.089
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AREA SOURCE EMISSIONS FOR ESSEX          COUNTY 2000      PAGE   1
                X           Y          SIDE          SO2          TSP
              (KM)        (KM)         (M)         (T/D)        (T/D)
              563.        4507.       1000.         0.097        0.091
              566.        4504.       2000.         0.086        0.083
              568.        4504.       2000.         0.186        0.138
              570.        4504.       2000.         0.201        0.169
              566.        4506.       1000.         0.115        0.094
              567.        4506.       1000.         0.087        0.082
              568.        4506.       1000.         0.132        0.133
              569.        4506.       1000.         0.127        0.079
              570.        4506.       1000.         0.147        0.093
              571.        4506.       1000.         0.048        0.050
              564.        4507.       1000.         0.086        0.074
              565.        4507.       1000.         0.109        0.101
              566.        4507.       1000.         0.132        0.107
              567.        4507.       1000.         0.173        0.158
              568.        4507.       1000.         0.147        0.163
              569.        4507.       1000.         0.167        0.160
              570.        4507.       1000.         0.102        0.092
              571.        4507.       1000.         0.070        0.083
              572.        4504.       2000.         0.438        0.152
              574.        4504.       2000.         0.031        0.026
              572.        4506.       2000.         0.292        0.200
              574.        4506.       2000.         0.251        0.050
              552.        4508.       4000.         0.063        0.060
              552.        4512.       4000.         0.136        0.125
              556.        4508.       4000.         0.250        0.212
              556.        4512.       4000.         0.260        0.230
              560.        4508.       2000.         0.190        0.150
              560.        4510.       2000.         0.145        0.119
              562.        4510.       2000.         0.276        0.217
              560.        4512.       2000.         0.067        0.057
              562.        4512.       2000.         0.269        0.226
              560.        4514.       2000.         0.078        0.076
              562.        4514.       2000.         0.248        0.212
              562.        4508.       1000.         0.025        0.021
              563.        4508.       1000.         0.101        0.092
              562.        4509.       1000.         0.075        0.060
              563.        4509.       1000.         0.071        0.059
              564.        4514.       2000.         0.291        0.254
              570.        4514.       2000.         0.439        0.333
              564.        4508.       1000.         0.105        0.092
              565.        4508.       1000.         0.157        0.155
              566.        4508.       1000.         0.175        0.149
              567.        4508.       1000.         0.176        0.165
              568.        4508.       1000.         0.159        0.156
              569.        4508.       1000.         0.235        0.225
              570.        4508.       1000.         0.148        0.143
              571.        4508.       1000.         0.140        0.137
              564.        4509.       1000.         0.110        0.086
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AREA SOURCE EMISSIONS FOR ESSEX          COUNTY 2000       PAGE  2
          X            Y          SIDE           SO2          TSP
        (KM)         (KM)          (M)          (T/D)        (T/D)
        565.        4509.        1000.          0.126        0.102
        566.        4509.        1000.          0.151        0.131
        567.        4509.        1000.          0.169        0.167
        568.        4509.        1000.          0.277        0.246
        569.        4509.        1000.          0.392        0.326
        570.        4509.        1000.          0.417        0.312
        571.        4509.        1000.          0.124        0.122
        564.        4510.        1000.          0.141        0.112
        565.        4510.        1000.          0.118        0.094
        566.        4510.        1000.          0.146        0.121
        567.        4510.        1000.          0.146        0.123
        568.        4510.        1000.          0.311        0.251
        569.        4510.        1000.          0.495        0.381
        564.        4511.        1000.          0.076        0.059
        565.        4511.        1000.          0.180        0.139
        566.        4511.        1000.          0.173        0.145
        567.        4511.        1000.          0.140        0.121
        568.        4511.        1000.          0.170        0.165
        569.        4511.        1000.          0.126        0.108
        564.        4512.        1000.          0.141        0.107
        565.        4512.        1000.          0.167        0.127
        566.        4512.        1000.          0.136        0.109
        567.        4512.        1000.          0.103        0.086
        568.        4512.        1000.          0.179        0.143
        569.        4512.        1000.          0.181        0.142
        570.        4512.        1000.          0.113        0.102
        564.        4513.        1000.          0.105        0.083
        565.        4513.        1000.          0.116        0.095
        566.        4513.        1000.          0.090        0.072
        567.        4513.        1000.          0.149        0.120
        568.        4513.        1000.          0.104        0.083
        569.        4513.        1000.          0.108        0.085
        570.        4513.        1000.          0.075        0.067
        566.        4514.        1000.          0.083        0.065
        567.        4514.        1000.          0.093        0.086
        568.        4514.        1000.          0.060        0.064
        569.        4514.        1000.          0.119        0.095
        566.        4515.        1000.          0.080        0.066
        567.        4515.        1000.          0.064        0.058
        568.        4515.        1000.          0.038        0.043
        569.        4515.        1000.          0.098        0.075
        572.        4508.        2000.          0.647        0.579
        552.        4516.        4000.          0.076        0.079
        556.        4516.        4000.          0.430        0.393
        560.        4516.        4000.          0.339        0.305
        556.        4520.        4000.          0.246        0.231
        560.        4520.        4000.          0.509        0.450
        564.        4520.        4000.          0.479        0.396
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AREA SOURCE EMISSIONS FOR ESSEX          COUNTY 2000      PAGE  3
               X           Y         SIDE          SO2         TSP
             (KM)        (KM)         (M)         (T/D)       (T/D)
             564.        4516.       2000.        0.221       0.179
             566.        4516.       2000.        0.228       0.185
             568.        4516.       2000.        0.263       0.218
             570.        4516.       2000.        0.236       0.205
             564.        4518.       2000.        0.157       0.126
             566.        4518.       2000.        0.157       0.127
             568.        4518.       2000.        0.167       0.141
             570.        4518.       2000.        0.251       0.201
             568.        4520.       2000.        0.197       0.166
             570.        4520.       2000.        0.201       0.163
             568.        4522.       2000.        0.026       0.024
             572.        4516.       2000.        0.066       0.063
             572.        4518.       2000.        0.112       0.109
             552.        4524.       4000.        0.002       0.002
             556.        4524.       4000.        0.172       0.168
             560.        4524.       4000.        0.408       0.377
             556.        4528.       4000.        0.010       0.010
             564.        4524.       4000.        0.109       0.100
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MASTER GRID SYSTEM FOR HUDSON COUNTY, XMIN,YMIN=   568.  4498.

                            2 2
                            2 2
                4 4 4 4 2 2 1 1 2 2
                4 4 4 4 2 2 1 1 2 2
        2 2 2 2 4 4 4 4 1 1 1 1 2 2
        2 2 2 2 4 4 4 4 1 1 1 1 2 2
    2 2 1 1 2 2 2 2 2 2 1 1 1 1
    2 2 1 1 2 2 2 2 2 2 1 1 1
    1 1 2 2 2 2 2 2 1 1 1 1 1
    1 1 2 2 2 2 2 2 1 1 1 1 1
            2 2 1 1 1 1 1 1 1
            2 2 1 1 1 1 1 1 1
            2 2 1 1 1 1 1 1
            2 2 1 1 1 1 1 1
            2 2 1 1 2 2 4 4 4 4
            2 2 1 1 2 2 4 4 4 4
        2 2 2 2 2 2 2 2 4 4 4 4
        2 2 2 2 2 2 2 2 4 4 4 4
4 4 4 4 2 2 2 2 4 4 4 4
4 4 4 4 2 2 2 2 4 4 4 4
4 4 4 4 2 2     4 4 4 4
4 4 4 4 2 2     4 4 4 4
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AREA SOURCE EMISSIONS FOR HUDSON          COUNTY 2000      PAGE  2
             X            Y          SIDE         SO2          TSP
           (KM)         (KM)          (M)        (T/D)        (T/D)
           579.         4511.       1000.        0.146        0.097
           572.         4512.       1000.        0.260        0.187
           573.         4512.       1000.        0.015        0.011
           572.         4513.       1000.        0.085        0.059
           573.         4513.       1000.        0.023        0.017
           580.         4506.       1000.        0.027        0.022
           581.         4506.       1000.        0.118        0.055
           580.         4507.       1000.        0.202        0.156
           581.         4507.       1000.        0.069        0.059
           580.         4508.       1000.        0.283        0.209
           581.         4508.       1000.        0.099        0.072
           582.         4508.       1000.        0.131        0.028
           580.         4509.       1000.        0.207        0.164
           581.         4509.       1000.        0.147        0.108
           582.         4509.       1000.        0.118        0.088
           580.         4510.       1000.        0.211        0.151
           581.         4510.       1000.        0.212        0.151
           582.         4510.       1000.        0.247        0.182
           580.         4511.       1000.        0.173        0.115
           581.         4511.       1000.        0.165        0.120
           582.         4511.       1000.        0.154        0.355
           580.         4512.       1000.        0.165        0.112
           581.         4512.       1000.        0.140        0.101
           582.         4512.       1000.        0.073        0.059
           580.         4513.       1000.        0.108        0.076
           581.         4513.       1000.        0.160        0.109
           582.         4513.       1000.        0.043        0.031
           583.         4513.       1000.        0.123        0.090
           576.         4514.       4000.        0.367        0.267
           572.         4514.       2000.        0.057        0.039
           574.         4514.       2000.        0.025        0.019
           584.         4514.       2000.        0.067        0.051
           580.         4516.       2000.        0.148        0.109
           584.         4516.       2000.        0.096        0.069
           582.         4518.       2000.        0.139        0.105
           580.         4514.       1000.        0.078        0.055
           581.         4514.       1000.        0.154        0.104
           582.         4514.       1000.        0.134        0.094
           583.         4514.       1000.        0.072        0.051
           580.         4515.       1000.        0.055        0.040
           581.         4515.       1000.        0.122        0.083
           582.         4515.       1000.        0.171        0.121
           583.         4515.       1000.        0.087        0.064
           582.         4516.       1000.        0.135        0.095
           583.         4516.       1000.        0.069        0.048
           582.         4517.       1000.        0.073        0.052
           583.         4517.       1000.        0.077        0.053
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AREA SOURCE EMISSIONS FOR HUDSON          COUNTY 2000       PAGE   1
          X            Y          SIDE            SO2            TSP
        (KM)         (KM)          (M)           (T/D)          (T/D)
        568.        4498.        4000.           0.016          0.011
        576.        4498.        4000.           0.382          0.158
        572.        4498.        2000.           0.191          0.033
        572.        4500.        2000.           0.291          0.146
        574.        4500.        2000.           0.320          0.175
        572.        4502.        2000.           0.092          0.063
        574.        4502.        2000.           0.192          0.133
        576.        4502.        2000.           0.114          0.089
        578.        4502.        2000.           0.108          0.020
        574.        4504.        2000.           0.120          0.086
        578.        4504.        2000.           0.050          0.043
        576.        4504.        1000.           0.080          0.058
        577.        4504.        1000.           0.042          0.030
        576.        4505.        1000.           0.077          0.054
        577.        4505.        1000.           0.091          0.061
        580.        4502.        4000.           0.103          0.019
        570.        4512.        2000.           0.173          0.122
        570.        4510.        1000.           0.186          0.144
        571.        4510.        1000.           0.121          0.091
        570.        4511.        1000.           0.133          0.077
        571.        4511.        1000.           0.103          0.073
        574.        4506.        2000.           0.184          0.136
        574.        4508.        2000.           0.283          0.215
        572.        4510.        2000.           0.248          0.159
        574.        4510.        2000.           0.125          0.212
        576.        4510.        2000.           0.185          0.127
        574.        4512.        2000.           0.053          0.037
        576.        4512.        2000.           0.148          0.113
        578.        4512.        2000.           0.195          0.139
        576.        4506.        1000.           0.114          0.081
        577.        4506.        1000.           0.132          0.091
        578.        4506.        1000.           0.081          0.067
        579.        4506.        1000.           0.072          0.070
        576.        4507.        1000.           0.075          0.052
        577.        4507.        1000.           0.119          0.083
        578.        4507.        1000.           0.152          0.113
        579.        4507.        1000.           0.205          0.168
        576.        4508.        1000.           0.077          0.054
        577.        4508.        1000.           0.117          0.083
        578.        4508.        1000.           0.242          0.171
        579.        4508.        1000.           0.202          0.152
        576.        4509.        1000.           0.080          0.058
        577.        4509.        1000.           0.076          0.058
        578.        4509.        1000.           0.187          0.136
        579.        4509.        1000.           0.156          0.111
        578.        4510.        1000.           0.068          0.071
        579.        4510.        1000.           0.126          0.088
        578.        4511.        1000.           0.029          0.021
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AREA SOURCE EMISSIONS FOR HUDSON        COUNTY 1985      PAGE  2
          X           Y          SIDE          SO2          TSP
        (KM)        (KM)          (M)         (T/D)        (T/D)
        579.        4511.       1000.         0.125        0.087
        572.        4512.       1000.         0.251        0.183
        573.        4512.       1000.         0.011        0.007
        572.        4513.       1000.         0.073        0.054
        573.        4513.       1000.         0.018        0.013
        580.        4506.       1000.         0.023        0.018
        581.        4506.       1000.         0.105        0.054
        580.        4507.       1000.         0.185        0.142
        581.        4507.       1000.         0.071        0.059
        580.        4508.       1000.         0.261        0.193
        581.        4508.       1000.         0.102        0.075
        582.        4508.       1000.         0.107        0.030
        580.        4509.       1000.         0.193        0.160
        581.        4509.       1000.         0.146        0.110
        582.        4509.       1000.         0.120        0.090
        580.        4510.       1000.         0.199        0.148
        581.        4510.       1000.         0.207        0.152
        582.        4510.       1000.         0.246        0.183
        580.        4511.       1000.         0.153        0.106
        581.        4511.       1000.         0.151        0.115
        582.        4511.       1000.         0.139        0.349
        580.        4512.       1000.         0.148        0.104
        581.        4512.       1000.         0.117        0.089
        582.        4512.       1000.         0.053        0.047
        580.        4513.       1000.         0.097        0.070
        581.        4513.       1000.         0.145        0.103
        582.        4513.       1000.         0.036        0.028
        583.        4513.       1000.         0.114        0.087
        576.        4514.       4000.         0.318        0.241
        572.        4514.       2000.         0.051        0.037
        574.        4514.       2000.         0.014        0.011
        584.        4514.       2000.         0.058        0.047
        580.        4516.       2000.         0.106        0.082
        584.        4516.       2000.         0.090        0.067
        582.        4518.       2000.         0.122        0.098
        580.        4514.       1000.         0.059        0.043
        581.        4514.       1000.         0.141        0.100
        582.        4514.       1000.         0.122        0.090
        583.        4514.       1000.         0.063        0.047
        580.        4515.       1000.         0.032        0.026
        581.        4515.       1000.         0.107        0.076
        582.        4515.       1000.         0.157        0.116
        583.        4515.       1000.         0.078        0.059
        582.        4516.       1000.         0.123        0.091
        583.        4516.       1000.         0.062        0.046
        582.        4517.       1000.         0.065        0.049
        583.        4517.       1000.         0.069        0.050
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AREA SOURCE EMISSIONS FOR HUDSON COUNTY 1985 PAGE 1

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
568.	4498.	4000.	0.015	0.011
576.	4498.	4000.	0.340	0.156
572.	4498.	2000.	0.143	0.029
572.	4500.	2000.	0.243	0.138
574.	4500.	2000.	0.307	0.174
572.	4502.	2000.	0.085	0.062
574.	4502.	2000.	0.168	0.122
576.	4502.	2000.	0.086	0.071
578.	4502.	2000.	0.074	0.012
574.	4504.	2000.	0.105	0.081
578.	4504.	2000.	0.032	0.025
576.	4504.	1000.	0.067	0.052
577.	4504.	1000.	0.030	0.022
576.	4505.	1000.	0.067	0.051
577.	4505.	1000.	0.081	0.058
580.	4502.	4000.	0.078	0.017
570.	4512.	2000.	0.156	0.115
570.	4510.	1000.	0.182	0.143
571.	4510.	1000.	0.109	0.087
570.	4511.	1000.	0.118	0.075
571.	4511.	1000.	0.093	0.070
574.	4506.	2000.	0.182	0.138
574.	4508.	2000.	0.254	0.208
572.	4510.	2000.	0.220	0.149
574.	4510.	2000.	0.112	0.203
576.	4510.	2000.	0.123	0.090
574.	4512.	2000.	0.036	0.025
576.	4512.	2000.	0.122	0.102
578.	4512.	2000.	0.154	0.112
576.	4506.	1000.	0.108	0.081
577.	4506.	1000.	0.119	0.088
578.	4506.	1000.	0.067	0.052
579.	4506.	1000.	0.053	0.044
576.	4507.	1000.	0.068	0.050
577.	4507.	1000.	0.110	0.081
578.	4507.	1000.	0.137	0.106
579.	4507.	1000.	0.176	0.140
576.	4508.	1000.	0.070	0.052
577.	4508.	1000.	0.100	0.075
578.	4508.	1000.	0.235	0.175
579.	4508.	1000.	0.185	0.142
576.	4509.	1000.	0.054	0.040
577.	4509.	1000.	0.050	0.040
578.	4509.	1000.	0.170	0.132
579.	4509.	1000.	0.147	0.108
578.	4510.	1000.	0.059	0.065
579.	4510.	1000.	0.112	0.082
578.	4511.	1000.	0.016	0.011

AREA SOURCE EMISSIONS FOR HUDSON COUNTY 1980 PAGE 2

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
579.	4511.	1000.	0.122	0.116
572.	4512.	1000.	0.249	0.185
573.	4512.	1000.	0.010	0.007
572.	4513.	1000.	0.071	0.063
573.	4513.	1000.	0.017	0.013
580.	4506.	1000.	0.021	0.017
581.	4506.	1000.	0.098	0.053
580.	4507.	1000.	0.172	0.166
581.	4507.	1000.	0.070	0.061
580.	4508.	1000.	0.241	0.226
581.	4508.	1000.	0.097	0.085
582.	4508.	1000.	0.099	0.030
580.	4509.	1000.	0.163	0.197
581.	4509.	1000.	0.138	0.129
582.	4509.	1000.	0.118	0.123
580.	4510.	1000.	0.193	0.191
581.	4510.	1000.	0.205	0.203
582.	4510.	1000.	0.241	0.255
580.	4511.	1000.	0.150	0.143
581.	4511.	1000.	0.151	0.157
582.	4511.	1000.	0.137	0.384
580.	4512.	1000.	0.144	0.140
581.	4512.	1000.	0.113	0.113
582.	4512.	1000.	0.049	0.047
580.	4513.	1000.	0.094	0.094
581.	4513.	1000.	0.141	0.138
582.	4513.	1000.	0.035	0.037
583.	4513.	1000.	0.111	0.127
576.	4514.	4000.	0.293	0.233
572.	4514.	2000.	0.049	0.043
574.	4514.	2000.	0.008	0.007
584.	4514.	2000.	0.057	0.068
580.	4516.	2000.	0.090	0.066
584.	4516.	2000.	0.087	0.088
582.	4518.	2000.	0.117	0.103
580.	4514.	1000.	0.056	0.047
581.	4514.	1000.	0.137	0.137
582.	4514.	1000.	0.118	0.126
583.	4514.	1000.	0.061	0.064
580.	4515.	1000.	0.030	0.022
581.	4515.	1000.	0.102	0.098
582.	4515.	1000.	0.150	0.154
583.	4515.	1000.	0.075	0.081
582.	4516.	1000.	0.118	0.121
583.	4516.	1000.	0.060	0.061
582.	4517.	1000.	0.063	0.058
583.	4517.	1000.	0.067	0.065

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AREA SOURCE EMISSIONS FOR HUDSON        COUNTY 1980     PAGE  1
       X           Y         SIDE           SO2         TSP
     (KM)        (KM)         (M)          (T/D)       (T/D)
     568.       4498.       4000.          0.014       0.012
     576.       4498.       4000.          0.324       0.155
     572.       4498.       2000.          0.129       0.031
     572.       4500.       2000.          0.231       0.158
     574.       4500.       2000.          0.308       0.213
     572.       4502.       2000.          0.084       0.076
     574.       4502.       2000.          0.161       0.157
     576.       4502.       2000.          0.078       0.079
     578.       4502.       2000.          0.065       0.011
     574.       4504.       2000.          0.101       0.099
     578.       4504.       2000.          0.028       0.026
     576.       4504.       1000.          0.063       0.061
     577.       4504.       1000.          0.027       0.024
     576.       4505.       1000.          0.065       0.069
     577.       4505.       1000.          0.079       0.082
     580.       4502.       4000.          0.070       0.015
     570.       4512.       2000.          0.149       0.126
     570.       4510.       1000.          0.179       0.154
     571.       4510.       1000.          0.103       0.092
     570.       4511.       1000.          0.115       0.092
     571.       4511.       1000.          0.091       0.080
     574.       4506.       2000.          0.178       0.150
     574.       4508.       2000.          0.240       0.216
     572.       4510.       2000.          0.207       0.150
     574.       4510.       2000.          0.107       0.201
     576.       4510.       2000.          0.104       0.089
     574.       4512.       2000.          0.030       0.020
     576.       4512.       2000.          0.102       0.084
     578.       4512.       2000.          0.138       0.115
     576.       4506.       1000.          0.106       0.101
     577.       4506.       1000.          0.117       0.127
     578.       4506.       1000.          0.062       0.068
     579.       4506.       1000.          0.045       0.046
     576.       4507.       1000.          0.066       0.058
     577.       4507.       1000.          0.107       0.118
     578.       4507.       1000.          0.134       0.157
     579.       4507.       1000.          0.161       0.165
     576.       4508.       1000.          0.067       0.060
     577.       4508.       1000.          0.098       0.100
     578.       4508.       1000.          0.234       0.256
     579.       4508.       1000.          0.176       0.185
     576.       4509.       1000.          0.052       0.047
     577.       4509.       1000.          0.048       0.048
     578.       4509.       1000.          0.170       0.194
     579.       4509.       1000.          0.145       0.154
     578.       4510.       1000.          0.058       0.071
     579.       4510.       1000.          0.109       0.115
     578.       4511.       1000.          0.014       0.011
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AREA SOURCE EMISSIONS FOR HUDSON COUNTY 1975 PAGE 2

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
579.	4511.	1000.	0.118	0.085
572.	4512.	1000.	0.248	0.179
573.	4512.	1000.	0.010	0.007
572.	4513.	1000.	0.069	0.051
573.	4513.	1000.	0.016	0.012
580.	4506.	1000.	0.020	0.015
581.	4506.	1000.	0.091	0.049
580.	4507.	1000.	0.171	0.130
581.	4507.	1000.	0.068	0.055
580.	4508.	1000.	0.238	0.173
581.	4508.	1000.	0.092	0.065
582.	4508.	1000.	0.085	0.027
580.	4509.	1000.	0.173	0.135
581.	4509.	1000.	0.129	0.092
582.	4509.	1000.	0.117	0.087
580.	4510.	1000.	0.184	0.140
581.	4510.	1000.	0.194	0.156
582.	4510.	1000.	0.237	0.181
580.	4511.	1000.	0.146	0.105
581.	4511.	1000.	0.145	0.119
582.	4511.	1000.	0.132	0.344
580.	4512.	1000.	0.141	0.100
581.	4512.	1000.	0.109	0.080
582.	4512.	1000.	0.046	0.035
580.	4513.	1000.	0.092	0.066
581.	4513.	1000.	0.138	0.098
582.	4513.	1000.	0.033	0.025
583.	4513.	1000.	0.109	0.082
576.	4514.	4000.	0.278	0.197
572.	4514.	2000.	0.048	0.035
574.	4514.	2000.	0.006	0.003
584.	4514.	2000.	0.056	0.092
580.	4516.	2000.	0.081	0.054
584.	4516.	2000.	0.084	0.063
582.	4518.	2000.	0.106	0.085
580.	4514.	1000.	0.053	0.036
581.	4514.	1000.	0.135	0.096
582.	4514.	1000.	0.116	0.086
583.	4514.	1000.	0.059	0.082
580.	4515.	1000.	0.028	0.019
581.	4515.	1000.	0.100	0.070
582.	4515.	1000.	0.147	0.109
583.	4515.	1000.	0.074	0.103
582.	4516.	1000.	0.116	0.086
583.	4516.	1000.	0.059	0.043
582.	4517.	1000.	0.060	0.045
583.	4517.	1000.	0.065	0.048

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AREA SOURCE EMISSIONS FOR HUDSON        COUNTY 1975      PAGE  1
                X            Y          SIDE           SO2           TSP
              (KM)         (KM)          (M)         (T/D)         (T/D)
              568.        4498.        4000.         0.014         0.010
              576.        4498.        4000.         0.304         0.150
              572.        4498.        2000.         0.108         0.025
              572.        4500.        2000.         0.213         0.132
              574.        4500.        2000.         0.303         0.172
              572.        4502.        2000.         0.082         0.059
              574.        4502.        2000.         0.156         0.114
              576.        4502.        2000.         0.074         0.062
              578.        4502.        2000.         0.053         0.010
              574.        4504.        2000.         0.096         0.073
              578.        4504.        2000.         0.027         0.022
              576.        4504.        1000.         0.060         0.045
              577.        4504.        1000.         0.025         0.018
              576.        4505.        1000.         0.063         0.048
              577.        4505.        1000.         0.076         0.057
              580.        4502.        4000.         0.059         0.015
              570.        4512.        2000.         0.145         0.104
              570.        4510.        1000.         0.173         0.134
              571.        4510.        1000.         0.097         0.073
              570.        4511.        1000.         0.108         0.072
              571.        4511.        1000.         0.088         0.065
              574.        4506.        2000.         0.169         0.125
              574.        4508.        2000.         0.226         0.175
              572.        4510.        2000.         0.195         0.124
              574.        4510.        2000.         0.102         0.193
              576.        4510.        2000.         0.094         0.061
              574.        4512.        2000.         0.028         0.017
              576.        4512.        2000.         0.094         0.063
              578.        4512.        2000.         0.130         0.092
              576.        4506.        1000.         0.102         0.078
              577.        4506.        1000.         0.113         0.087
              578.        4506.        1000.         0.060         0.047
              579.        4506.        1000.         0.043         0.034
              576.        4507.        1000.         0.062         0.045
              577.        4507.        1000.         0.104         0.079
              578.        4507.        1000.         0.130         0.104
              579.        4507.        1000.         0.160         0.125
              576.        4508.        1000.         0.063         0.046
              577.        4508.        1000.         0.093         0.070
              578.        4508.        1000.         0.223         0.172
              579.        4508.        1000.         0.173         0.134
              576.        4509.        1000.         0.049         0.036
              577.        4509.        1000.         0.045         0.036
              578.        4509.        1000.         0.163         0.130
              579.        4509.        1000.         0.139         0.107
              578.        4510.        1000.         0.057         0.064
              579.        4510.        1000.         0.106         0.082
              578.        4511.        1000.         0.013         0.009
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         MASTER GRID SYSTEM FOR MIDDLESEX    COUNTY, XMIN,YMIN=   531.  4454.

                                        4 4 4 4 4 4 4 4         4 4 4 4
                                        4 4 4 4 4 4 4 4         4 4 4 4
                                2 2 2 2 4 4 4 4 4 4 4 4     2 2 4 4 4 4
                                2 2 2 2 4 4 4 4 4 4 4 4     2 2 4 4 4 4
                4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 2 2 2 2
                4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 2 2 2 2
                4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 2 2 2 2
                4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 2 2 2 2
                4 4 4 4 4 4 4 4 4 4 4 4 2 2 2 2 4 4 4 4 2 2 2 2 4 4 4 4
                4 4 4 4 4 4 4 4 4 4 4 4 2 2 2 2 4 4 4 4 2 2 2 2 4 4 4 4
                4 4 4 4 4 4 4 4 4 4 4 4 2 2 2 2 4 4 4 4 2 2 2 2 4 4 4 4
                4 4 4 4 4 4 4 4 4 4 4 4 2 2 2 2 4 4 4 4 2 2 2 2 4 4 4 4
                        2 2 2 2 2 2 2 2 4 4 4 4 4 4 4 4 2 2 2 2
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                              1 2 2 2 2 4 4 4 4 4 4 4 4 2 2 2 2
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                4 4 4 4 2 2 1 1 2 2 2 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
                4 4 4 4 2 2 1 1 2 2 2 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
                4 4 4 4 2 2 2 2 2 2 2 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
                4 4 4 4 2 2 2 2 2 2 2 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
        4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 2 2 2 2 4 4 4 4 4 4 4 4 4 4 4 4
        4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 2 2 2 2 4 4 4 4 4 4 4 4 4 4 4 4
        4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 2 2 2 2 4 4 4 4 4 4 4 4 4 4 4 4
        4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 2 2 2 2 4 4 4 4 4 4 4 4 4 4 4 4
8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 4 4 4 4 4 4 4 4 8 8 8 8 8 8 8 8 4 4 4 4
8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 4 4 4 4 4 4 4 4 8 8 8 8 8 8 8 8 4 4 4 4
8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 4 4 4 4 4 4 4 4 8 8 8 8 8 8 8 8 4 4 4 4
8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 4 4 4 4 4 4 4 4 8 8 8 8 8 8 8 8 4 4 4 4
8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 4 4 4 4 4 4 4 4 8 8 8 8 8 8 8 8
8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 4 4 4 4 4 4 4 4 8 8 8 8 8 8 8 8
8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 4 4 4 4 4 4 4 4 8 8 8 8 8 8 8 8
8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 4 4 4 4 4 4 4 4 8 8 8 8 8 8 8 8
4 4 4 4 4 4 4 4 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
4 4 4 4 4 4 4 4 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
4 4 4 4 4 4 4 4 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
4 4 4 4 4 4 4 4 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
        4 4 4 4 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
        4 4 4 4 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
        4 4 4 4 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
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AREA SOURCE EMISSIONS FOR MIDDLESEX     COUNTY 1975      PAGE  1
            X          Y          SIDE          SO2          TSP
          (KM)       (KM)          (M)         (T/D)        (T/D)
          543.       4454.       4000.         0.002        0.004
          535.       4458.       4000.         0.001        0.0
          531.       4462.       4000.         0.045        0.038
          535.       4462.       4000.         0.020        0.020
          539.       4458.       8000.         0.099        0.091
          547.       4458.       8000.         0.090        0.080
          531.       4466.       8000.         0.134        0.122
          539.       4466.       8000.         0.174        0.161
          547.       4466.       4000.         0.095        0.092
          551.       4466.       4000.         0.043        0.038
          547.       4470.       4000.         0.094        0.092
          551.       4470.       4000.         0.187        0.197
          555.       4466.       8000.         0.255        0.252
          563.       4470.       4000.         0.008        0.009
          535.       4474.       4000.         0.026        0.026
          539.       4474.       4000.         0.076        0.076
          543.       4474.       4000.         0.127        0.123
          539.       4478.       4000.         0.028        0.034
          543.       4478.       2000.         0.097        0.108
          545.       4478.       2000.         0.131        0.139
          543.       4480.       2000.         0.097        0.106
          545.       4480.       1000.         0.054        0.056
          546.       4480.       1000.         0.036        0.045
          545.       4481.       1000.         0.145        0.102
          546.       4481.       1000.         0.100        0.101
          547.       4474.       4000.         0.196        0.194
          551.       4478.       4000.         0.159        0.140
          551.       4474.       2000.         0.051        0.052
          553.       4474.       2000.         0.039        0.038
          551.       4476.       2000.         0.132        0.138
          553.       4476.       2000.         0.068        0.079
          547.       4478.       2000.         0.067        0.064
          549.       4478.       2000.         0.079        0.079
          547.       4480.       2000.         0.114        0.129
          549.       4480.       2000.         0.038        0.045
          555.       4474.       4000.         0.207        0.212
          559.       4474.       4000.         0.106        0.104
          555.       4478.       4000.         0.226        0.283
          559.       4478.       4000.         0.215        0.208
          563.       4474.       4000.         0.062        0.063
          563.       4478.       4000.         0.026        0.026
          539.       4486.       4000.         0.059        0.139
          543.       4486.       4000.         0.167        0.175
          543.       4484.       2000.         0.030        0.028
          545.       4484.       2000.         0.047        0.045
          545.       4482.       1000.         0.064        0.081
          546.       4482.       1000.         0.107        0.109
          546.       4483.       1000.         0.037        0.046
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AREA SOURCE EMISSIONS FOR MIDDLESEX COUNTY 1975 PAGE 2

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
551.	4482.	4000.	0.242	0.257
547.	4486.	4000.	0.170	0.181
547.	4482.	2000.	0.185	0.195
549.	4482.	2000.	0.291	0.390
547.	4484.	2000.	0.044	0.047
549.	4484.	2000.	0.072	0.075
551.	4486.	2000.	0.146	0.170
553.	4486.	2000.	0.096	0.096
551.	4488.	2000.	0.061	0.058
553.	4488.	2000.	0.084	0.086
555.	4482.	4000.	0.269	0.994
555.	4486.	4000.	0.483	0.364
559.	4482.	2000.	0.102	0.082
561.	4482.	2000.	0.175	0.061
559.	4484.	2000.	0.159	0.164
561.	4484.	2000.	0.326	0.297
559.	4486.	2000.	0.133	0.139
561.	4486.	2000.	0.178	0.591
559.	4488.	2000.	0.100	0.105
561.	4488.	2000.	0.134	0.141
563.	4486.	4000.	0.237	0.032
539.	4490.	4000.	0.140	0.154
543.	4490.	4000.	0.375	0.379
547.	4490.	4000.	0.411	0.486
551.	4490.	4000.	0.193	0.194
551.	4494.	4000.	0.021	0.022
547.	4494.	2000.	0.073	0.075
549.	4494.	2000.	0.048	0.049
555.	4490.	4000.	0.282	0.288
559.	4490.	4000.	0.513	0.529
555.	4494.	4000.	0.129	0.134
561.	4494.	2000.	0.042	0.055
563.	4494.	4000.	0.055	0.166
563.	4490.	2000.	0.181	0.134
565.	4490.	2000.	0.195	0.193
563.	4492.	2000.	0.186	0.179
565.	4492.	2000.	0.064	0.191

AREA SOURCE EMISSIONS FOR MIDDLESEX COUNTY 1980 PAGE 1

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
543.	4454.	4000.	0.002	0.004
535.	4458.	4000.	0.001	0.001
531.	4462.	4000.	0.053	0.058
535.	4462.	4000.	0.027	0.038
539.	4458.	8000.	0.125	0.146
547.	4458.	8000.	0.113	0.144
531.	4466.	8000.	0.169	0.188
539.	4466.	8000.	0.202	0.233
547.	4466.	4000.	0.113	0.132
551.	4466.	4000.	0.060	0.082
547.	4470.	4000.	0.114	0.137
551.	4470.	4000.	0.207	0.255
555.	4466.	8000.	0.296	0.383
563.	4470.	4000.	0.009	0.012
535.	4474.	4000.	0.032	0.039
539.	4474.	4000.	0.089	0.102
543.	4474.	4000.	0.135	0.150
539.	4478.	4000.	0.029	0.042
543.	4478.	2000.	0.101	0.129
545.	4478.	2000.	0.135	0.162
543.	4480.	2000.	0.100	0.126
545.	4480.	1000.	0.056	0.064
546.	4480.	1000.	0.038	0.053
545.	4481.	1000.	0.147	0.112
546.	4481.	1000.	0.103	0.116
547.	4474.	4000.	0.207	0.230
551.	4478.	4000.	0.180	0.187
551.	4474.	2000.	0.058	0.067
553.	4474.	2000.	0.042	0.050
551.	4476.	2000.	0.138	0.154
553.	4476.	2000.	0.072	0.093
547.	4478.	2000.	0.072	0.078
549.	4478.	2000.	0.084	0.098
547.	4480.	2000.	0.119	0.155
549.	4480.	2000.	0.043	0.063
555.	4474.	4000.	0.218	0.267
559.	4474.	4000.	0.116	0.163
555.	4478.	4000.	0.253	0.374
559.	4478.	4000.	0.231	0.270
563.	4474.	4000.	0.068	0.081
563.	4478.	4000.	0.029	0.033
539.	4486.	4000.	0.063	0.156
543.	4486.	4000.	0.182	0.228
543.	4484.	2000.	0.031	0.035
545.	4484.	2000.	0.050	0.059
545.	4482.	1000.	0.067	0.095
546.	4482.	1000.	0.109	0.123
546.	4483.	1000.	0.039	0.056

AREA SOURCE EMISSIONS FOR MIDDLESEX COUNTY 1980 PAGE 2

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
551.	4482.	4000.	0.257	0.310
547.	4486.	4000.	0.191	0.246
547.	4482.	2000.	0.194	0.245
549.	4482.	2000.	0.296	0.420
547.	4484.	2000.	0.047	0.061
549.	4484.	2000.	0.077	0.092
551.	4486.	2000.	0.154	0.201
553.	4486.	2000.	0.101	0.115
551.	4488.	2000.	0.067	0.075
553.	4488.	2000.	0.089	0.107
555.	4482.	4000.	0.294	1.038
555.	4486.	4000.	0.505	0.470
559.	4482.	2000.	0.115	0.106
561.	4482.	2000.	0.205	0.078
559.	4484.	2000.	0.165	0.189
561.	4484.	2000.	0.330	0.350
559.	4486.	2000.	0.140	0.168
561.	4486.	2000.	0.184	0.619
559.	4488.	2000.	0.103	0.125
561.	4488.	2000.	0.140	0.164
563.	4486.	4000.	0.258	0.037
539.	4490.	4000.	0.147	0.185
543.	4490.	4000.	0.395	0.461
547.	4490.	4000.	0.432	0.546
551.	4490.	4000.	0.210	0.255
551.	4494.	4000.	0.023	0.026
547.	4494.	2000.	0.072	0.084
549.	4494.	2000.	0.048	0.058
555.	4490.	4000.	0.305	0.358
559.	4490.	4000.	0.533	0.626
555.	4494.	4000.	0.133	0.155
561.	4494.	2000.	0.042	0.062
563.	4494.	4000.	0.056	0.177
563.	4490.	2000.	0.186	0.147
565.	4490.	2000.	0.220	0.217
563.	4492.	2000.	0.191	0.203
565.	4492.	2000.	0.067	0.201

AREA SOURCE EMISSIONS FOR MIDDLESEX COUNTY 1985 PAGE 1

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
543.	4454.	4000.	0.003	0.004
535.	4458.	4000.	0.001	0.002
531.	4462.	4000.	0.070	0.077
535.	4462.	4000.	0.051	0.066
539.	4458.	8000.	0.183	0.214
547.	4458.	8000.	0.171	0.213
531.	4466.	8000.	0.229	0.257
539.	4466.	8000.	0.271	0.319
547.	4466.	4000.	0.148	0.173
551.	4466.	4000.	0.095	0.126
547.	4470.	4000.	0.154	0.187
551.	4470.	4000.	0.238	0.287
555.	4466.	8000.	0.380	0.476
563.	4470.	4000.	0.009	0.011
535.	4474.	4000.	0.044	0.054
539.	4474.	4000.	0.116	0.143
543.	4474.	4000.	0.155	0.171
539.	4478.	4000.	0.032	0.042
543.	4478.	2000.	0.108	0.130
545.	4478.	2000.	0.137	0.162
543.	4480.	2000.	0.104	0.123
545.	4480.	1000.	0.055	0.060
546.	4480.	1000.	0.039	0.052
545.	4481.	1000.	0.147	0.107
546.	4481.	1000.	0.102	0.109
547.	4474.	4000.	0.227	0.249
551.	4478.	4000.	0.214	0.224
551.	4474.	2000.	0.066	0.076
553.	4474.	2000.	0.051	0.060
551.	4476.	2000.	0.141	0.154
553.	4476.	2000.	0.082	0.107
547.	4478.	2000.	0.077	0.081
549.	4478.	2000.	0.091	0.104
547.	4480.	2000.	0.124	0.149
549.	4480.	2000.	0.052	0.069
555.	4474.	4000.	0.247	0.290
559.	4474.	4000.	0.138	0.160
555.	4478.	4000.	0.308	0.441
559.	4478.	4000.	0.255	0.275
563.	4474.	4000.	0.069	0.078
563.	4478.	4000.	0.029	0.033
539.	4486.	4000.	0.073	0.167
543.	4486.	4000.	0.221	0.265
543.	4484.	2000.	0.035	0.038
545.	4484.	2000.	0.062	0.072
545.	4482.	1000.	0.067	0.088
546.	4482.	1000.	0.108	0.115
546.	4483.	1000.	0.042	0.055

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AREA SOURCE EMISSIONS FOR MIDDLESEX     COUNTY 1985      PAGE  2
          X            Y           SIDE          SO2         TSP
        (KM)         (KM)           (M)         (T/D)       (T/D)
        551.         4482.         4000.         0.289       0.338
        547.         4486.         4000.         0.242       0.314
        547.         4482.         2000.         0.196       0.220
        549.         4482.         2000.         0.300       0.409
        547.         4484.         2000.         0.055       0.068
        549.         4484.         2000.         0.082       0.091
        551.         4486.         2000.         0.158       0.199
        553.         4486.         2000.         0.106       0.114
        551.         4488.         2000.         0.077       0.085
        553.         4488.         2000.         0.096       0.108
        555.         4482.         4000.         0.343       1.085
        555.         4486.         4000.         0.538       0.471
        559.         4482.         2000.         0.129       0.116
        561.         4482.         2000.         0.224       0.074
        559.         4484.         2000.         0.169       0.187
        561.         4484.         2000.         0.327       0.324
        559.         4486.         2000.         0.147       0.164
        561.         4486.         2000.         0.190       0.621
        559.         4488.         2000.         0.110       0.127
        561.         4488.         2000.         0.145       0.167
        563.         4486.         4000.         0.275       0.040
        539.         4490.         4000.         0.154       0.184
        543.         4490.         4000.         0.409       0.451
        547.         4490.         4000.         0.464       0.580
        551.         4490.         4000.         0.240       0.280
        551.         4494.         4000.         0.026       0.029
        547.         4494.         2000.         0.070       0.078
        549.         4494.         2000.         0.048       0.054
        555.         4490.         4000.         0.327       0.362
        559.         4490.         4000.         0.565       0.639
        555.         4494.         4000.         0.136       0.153
        561.         4494.         2000.         0.045       0.063
        563.         4494.         4000.         0.061       0.182
        563.         4490.         2000.         0.191       0.151
        565.         4490.         2000.         0.240       0.220
        563.         4492.         2000.         0.193       0.203
        565.         4492.         2000.         0.069       0.201
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AREA SOURCE EMISSIONS FOR MIDDLESEX    COUNTY 2000     PAGE  1
       X           Y          SIDE         SO2         TSP
     (KM)        (KM)          (M)        (T/D)       (T/D)
     543.        4454.        4000.        0.003       0.005
     535.        4458.        4000.        0.003       0.005
     531.        4462.        4000.        0.083       0.099
     535.        4462.        4000.        0.066       0.091
     539.        4458.        8000.        0.223       0.288
     547.        4458.        8000.        0.211       0.278
     531.        4466.        8000.        0.276       0.340
     539.        4466.        8000.        0.330       0.402
     547.        4466.        4000.        0.171       0.207
     551.        4466.        4000.        0.120       0.173
     547.        4470.        4000.        0.182       0.230
     551.        4470.        4000.        0.256       0.305
     555.        4466.        8000.        0.435       0.561
     563.        4470.        4000.        0.009       0.010
     535.        4474.        4000.        0.054       0.067
     539.        4474.        4000.        0.137       0.179
     543.        4474.        4000.        0.163       0.188
     539.        4478.        4000.        0.031       0.043
     543.        4478.        2000.        0.106       0.125
     545.        4478.        2000.        0.135       0.151
     543.        4480.        2000.        0.101       0.115
     545.        4480.        1000.        0.053       0.054
     546.        4480.        1000.        0.037       0.047
     545.        4481.        1000.        0.144       0.100
     546.        4481.        1000.        0.098       0.098
     547.        4474.        4000.        0.233       0.259
     551.        4478.        4000.        0.246       0.247
     551.        4474.        2000.        0.069       0.079
     553.        4474.        2000.        0.055       0.066
     551.        4476.        2000.        0.139       0.142
     553.        4476.        2000.        0.086       0.111
     547.        4478.        2000.        0.080       0.084
     549.        4478.        2000.        0.094       0.105
     547.        4480.        2000.        0.120       0.141
     549.        4480.        2000.        0.058       0.077
     555.        4474.        4000.        0.257       0.302
     559.        4474.        4000.        0.154       0.174
     555.        4478.        4000.        0.338       0.476
     559.        4478.        4000.        0.266       0.278
     563.        4474.        4000.        0.071       0.076
     563.        4478.        4000.        0.030       0.032
     539.        4486.        4000.        0.078       0.174
     543.        4486.        4000.        0.240       0.303
     543.        4484.        2000.        0.036       0.041
     545.        4484.        2000.        0.066       0.083
     545.        4482.        1000.        0.063       0.078
     546.        4482.        1000.        0.104       0.104
     546.        4483.        1000.        0.041       0.051
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AREA SOURCE EMISSIONS FOR MIDDLESEX     COUNTY 2000      PAGE  2
      X            Y           SIDE          SO2          TSP
     (KM)         (KM)          (M)         (T/D)        (T/D)
     551.        4482.        4000.         0.304        0.371
     547.        4486.        4000.         0.272        0.358
     547.        4482.        2000.         0.189        0.205
     549.        4482.        2000.         0.298        0.402
     547.        4484.        2000.         0.059        0.079
     549.        4484.        2000.         0.084        0.092
     551.        4486.        2000.         0.154        0.185
     553.        4486.        2000.         0.107        0.111
     551.        4488.        2000.         0.085        0.093
     553.        4488.        2000.         0.099        0.107
     555.        4482.        4000.         0.389        1.131
     555.        4486.        4000.         0.547        0.472
     559.        4482.        2000.         0.147        0.120
     561.        4482.        2000.         0.283        0.070
     559.        4484.        2000.         0.165        0.176
     561.        4484.        2000.         0.306        0.293
     559.        4486.        2000.         0.144        0.159
     561.        4486.        2000.         0.182        0.607
     559.        4488.        2000.         0.109        0.124
     561.        4488.        2000.         0.143        0.158
     563.        4486.        4000.         0.324        0.045
     539.        4490.        4000.         0.155        0.175
     543.        4490.        4000.         0.410        0.434
     547.        4490.        4000.         0.475        0.590
     551.        4490.        4000.         0.258        0.300
     551.        4494.        4000.         0.027        0.031
     547.        4494.        2000.         0.067        0.071
     549.        4494.        2000.         0.046        0.050
     555.        4490.        4000.         0.329        0.355
     559.        4490.        4000.         0.563        0.621
     555.        4494.        4000.         0.134        0.142
     561.        4494.        2000.         0.043        0.058
     563.        4494.        4000.         0.065        0.182
     563.        4490.        2000.         0.191        0.148
     565.        4490.        2000.         0.289        0.221
     563.        4492.        2000.         0.190        0.188
     565.        4492.        2000.         0.069        0.196
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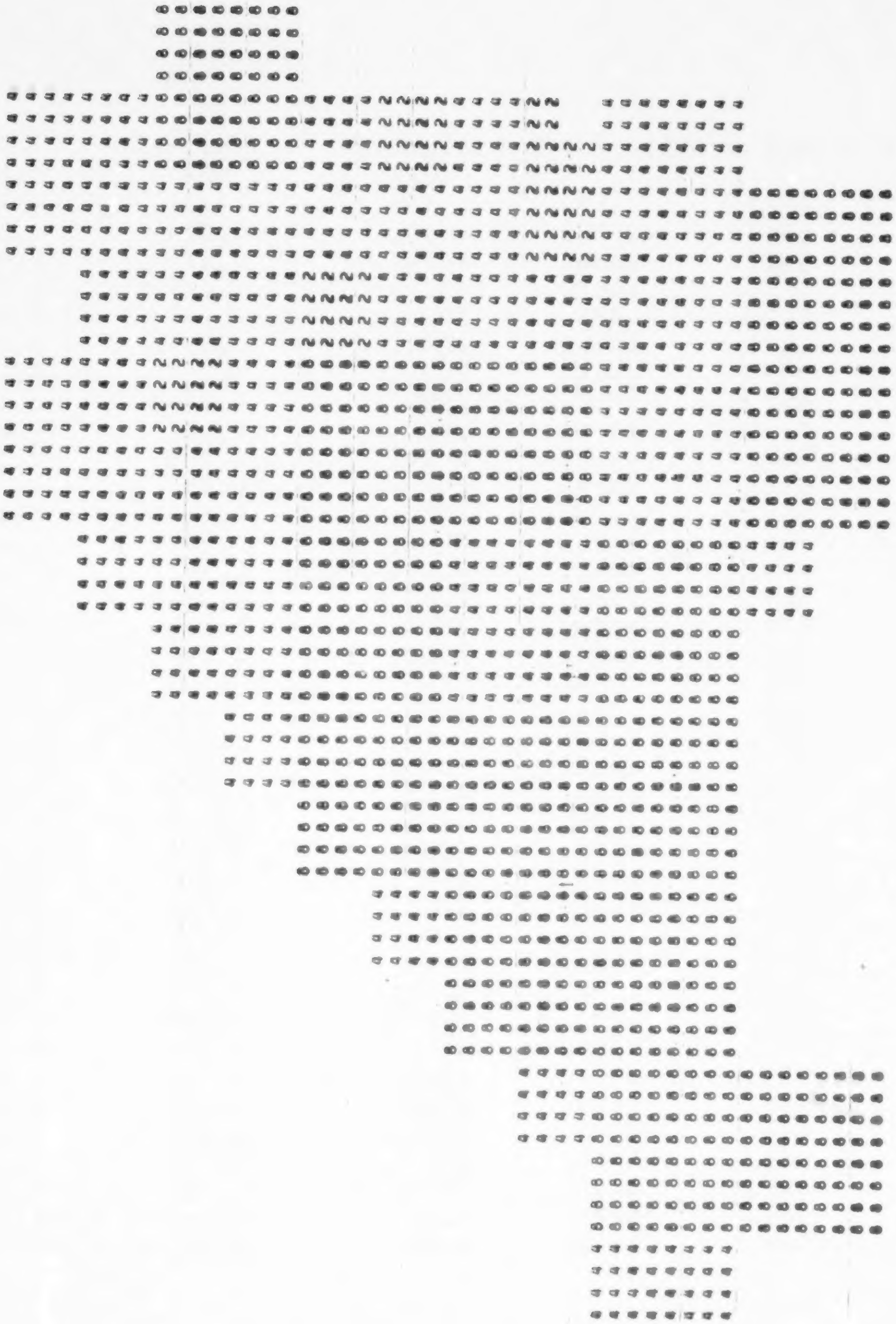
MASTER GRID SYSTEM FOR MONMOUTH COUNTY, XMIN,YMIN= 532. 4435.



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AREA SOURCE EMISSIONS FOR MONMOUTH        COUNTY 1975      PAGE   1
          X             Y           SIDE          SO2          TSP
        (KM)          (KM)          (M)          (T/D)        (T/D)
        536.          4435.         8000.        0.007        0.007
        564.          4439.         4000.        0.023        0.024
        568.          4435.         8000.        0.015        0.014
        576.          4435.         8000.        0.233        0.259
        532.          4443.         4000.        0.013        0.013
        532.          4447.         4000.        0.012        0.012
        536.          4443.         8000.        0.061        0.058
        544.          4443.         8000.        0.006        0.007
        552.          4443.         8000.        0.013        0.016
        560.          4443.         8000.        0.128        0.129
        568.          4443.         4000.        0.016        0.013
        572.          4443.         4000.        0.014        0.016
        568.          4447.         4000.        0.068        0.064
        572.          4447.         4000.        0.050        0.048
        576.          4443.         4000.        0.052        0.053
        580.          4443.         4000.        0.234        0.246
        576.          4447.         4000.        0.071        0.087
        580.          4447.         4000.        0.450        0.410
        584.          4443.         4000.        0.006        0.006
        584.          4447.         4000.        0.153        0.092
        540.          4451.         4000.        0.002        0.002
        544.          4451.         8000.        0.027        0.030
        552.          4451.         8000.        0.080        0.086
        560.          4451.         4000.        0.060        0.061
        564.          4451.         4000.        0.029        0.025
        560.          4455.         4000.        0.169        0.317
        564.          4455.         4000.        0.008        0.009
        568.          4451.         8000.        0.056        0.044
        576.          4451.         4000.        0.077        0.081
        576.          4455.         4000.        0.031        0.032
        580.          4455.         4000.        0.126        0.137
        580.          4451.         2000.        0.087        0.092
        582.          4451.         2000.        0.246        0.267
        580.          4453.         2000.        0.053        0.054
        582.          4453.         2000.        0.100        0.114
        584.          4455.         4000.        0.081        0.082
        584.          4451.         2000.        0.213        0.226
        584.          4453.         2000.        0.061        0.067
        586.          4453.         2000.        0.002        0.002
        548.          4459.         4000.        0.001        0.001
        552.          4459.         8000.        0.169        0.172
        560.          4459.         8000.        0.143        0.139
        568.          4459.         8000.        0.135        0.134
        576.          4459.         4000.        0.169        0.221
        580.          4459.         4000.        0.270        0.302
        580.          4463.         4000.        0.116        0.136
        576.          4463.         2000.        0.019        0.022
        578.          4463.         2000.        0.060        0.063
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AREA SOURCE EMISSIONS FOR MONMOUTH      COUNTY 1975      PAGE  2
          X            Y          SIDE           SO2          TSP
        (KM)         (KM)          (M)         (T/D)        (T/D)
        576.        4465.        2000.         0.058        0.063
        578.        4465.        2000.         0.145        0.148
        584.        4463.        4000.         0.081        0.087
        584.        4459.        2000.         0.129        0.135
        586.        4459.        2000.         0.029        0.031
        584.        4461.        2000.         0.139        0.141
        586.        4461.        2000.         0.059        0.062
        556.        4467.        4000.         0.009        0.008
        560.        4467.        4000.         0.030        0.031
        564.        4467.        4000.         0.039        0.038
        560.        4471.        4000.         0.023        0.025
        564.        4471.        4000.         0.247        0.253
        568.        4467.        4000.         0.080        0.071
        572.        4467.        4000.         0.054        0.055
        568.        4471.        4000.         0.108        0.101
        572.        4471.        2000.         0.025        0.022
        574.        4471.        2000.         0.038        0.036
        572.        4473.        2000.         0.119        0.110
        574.        4473.        2000.         0.046        0.049
        576.        4467.        4000.         0.134        0.126
        580.        4467.        4000.         0.097        0.086
        576.        4471.        4000.         0.161        0.112
        580.        4471.        4000.         0.093        0.099
        584.        4467.        8000.         0.149        0.138
        564.        4475.        4000.         0.196        0.196
        568.        4475.        4000.         0.164        0.171
        572.        4475.        4000.         0.197        0.215
        568.        4479.        4000.         0.001        0.001
        572.        4479.        4000.         0.005        0.005
        576.        4475.        4000.         0.047        0.046
        580.        4475.        4000.         0.007        0.011
        580.        4479.        4000.         0.003        0.008
        584.        4475.        4000.         0.004        0.011
        584.        4479.        4000.         0.004        0.013
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AREA SOURCE EMISSIONS FOR MONMOUTH COUNTY 1980 PAGE 1

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
536.	4435.	8000.	0.008	0.009
564.	4439.	4000.	0.036	0.041
568.	4435.	8000.	0.024	0.027
576.	4435.	8000.	0.266	0.300
532.	4443.	4000.	0.017	0.023
532.	4447.	4000.	0.018	0.022
536.	4443.	8000.	0.100	0.123
544.	4443.	8000.	0.008	0.009
552.	4443.	8000.	0.016	0.018
560.	4443.	8000.	0.167	0.189
568.	4443.	4000.	0.022	0.018
572.	4443.	4000.	0.016	0.019
568.	4447.	4000.	0.082	0.083
572.	4447.	4000.	0.061	0.066
576.	4443.	4000.	0.062	0.073
580.	4443.	4000.	0.258	0.289
576.	4447.	4000.	0.087	0.106
580.	4447.	4000.	0.511	0.486
584.	4443.	4000.	0.006	0.007
584.	4447.	4000.	0.175	0.106
540.	4451.	4000.	0.002	0.003
544.	4451.	8000.	0.040	0.046
552.	4451.	8000.	0.104	0.108
560.	4451.	4000.	0.085	0.091
564.	4451.	4000.	0.039	0.037
560.	4455.	4000.	0.193	0.356
564.	4455.	4000.	0.013	0.015
568.	4451.	8000.	0.073	0.058
576.	4451.	4000.	0.092	0.103
576.	4455.	4000.	0.045	0.053
580.	4455.	4000.	0.148	0.175
580.	4451.	2000.	0.097	0.111
582.	4451.	2000.	0.265	0.313
580.	4453.	2000.	0.060	0.069
582.	4453.	2000.	0.110	0.134
584.	4455.	4000.	0.089	0.096
584.	4451.	2000.	0.216	0.255
584.	4453.	2000.	0.065	0.076
586.	4453.	2000.	0.002	0.002
548.	4459.	4000.	0.002	0.002
552.	4459.	8000.	0.240	0.265
560.	4459.	8000.	0.179	0.200
568.	4459.	8000.	0.176	0.185
576.	4459.	4000.	0.168	0.276
580.	4459.	4000.	0.289	0.344
580.	4463.	4000.	0.130	0.151
576.	4463.	2000.	0.021	0.027
578.	4463.	2000.	0.067	0.072

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AREA SOURCE EMISSIONS FOR MONMOUTH      COUNTY 1980      PAGE  2
        X            Y          SIDE           SO2          TSP
      (KM)         (KM)          (M)          (T/D)        (T/D)
      576.         4465.        2000.         0.068        0.078
      578.         4465.        2000.         0.156        0.178
      584.         4463.        4000.         0.093        0.107
      584.         4459.        2000.         0.140        0.176
      586.         4459.        2000.         0.032        0.038
      584.         4461.        2000.         0.151        0.174
      586.         4461.        2000.         0.064        0.077
      556.         4467.        4000.         0.015        0.015
      560.         4467.        4000.         0.037        0.040
      564.         4467.        4000.         0.050        0.056
      560.         4471.        4000.         0.026        0.030
      564.         4471.        4000.         0.284        0.317
      568.         4467.        4000.         0.107        0.114
      572.         4467.        4000.         0.072        0.074
      568.         4471.        4000.         0.146        0.156
      572.         4471.        2000.         0.030        0.030
      574.         4471.        2000.         0.045        0.044
      572.         4473.        2000.         0.126        0.124
      574.         4473.        2000.         0.055        0.057
      576.         4467.        4000.         0.157        0.156
      580.         4467.        4000.         0.115        0.101
      576.         4471.        4000.         0.201        0.149
      580.         4471.        4000.         0.115        0.135
      584.         4467.        8000.         0.172        0.164
      564.         4475.        4000.         0.219        0.238
      568.         4475.        4000.         0.197        0.219
      572.         4475.        4000.         0.233        0.261
      568.         4479.        4000.         0.001        0.002
      572.         4479.        4000.         0.005        0.007
      576.         4475.        4000.         0.053        0.054
      580.         4475.        4000.         0.008        0.013
      580.         4479.        4000.         0.003        0.010
      584.         4475.        4000.         0.004        0.011
      584.         4479.        4000.         0.004        0.013
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AREA SOURCE EMISSIONS FOR MONMOUTH        COUNTY 1985      PAGE  1
           X              Y            SIDE            SO2           TSP
         (KM)           (KM)           (M)            (T/D)         (T/D)
         536.           4435.          8000.          0.009         0.009
         564.           4439.          4000.          0.043         0.051
         568.           4435.          8000.          0.030         0.030
         576.           4435.          8000.          0.284         0.308
         532.           4443.          4000.          0.027         0.031
         532.           4447.          4000.          0.025         0.028
         536.           4443.          8000.          0.149         0.179
         544.           4443.          8000.          0.009         0.009
         552.           4443.          8000.          0.019         0.020
         560.           4443.          8000.          0.209         0.233
         568.           4443.          4000.          0.024         0.020
         572.           4443.          4000.          0.017         0.022
         568.           4447.          4000.          0.096         0.098
         572.           4447.          4000.          0.077         0.078
         576.           4443.          4000.          0.072         0.080
         580.           4443.          4000.          0.273         0.282
         576.           4447.          4000.          0.097         0.115
         580.           4447.          4000.          0.540         0.466
         584.           4443.          4000.          0.006         0.007
         584.           4447.          4000.          0.189         0.098
         540.           4451.          4000.          0.002         0.004
         544.           4451.          8000.          0.050         0.056
         552.           4451.          8000.          0.121         0.132
         560.           4451.          4000.          0.104         0.114
         564.           4451.          4000.          0.049         0.048
         560.           4455.          4000.          0.207         0.359
         564.           4455.          4000.          0.017         0.019
         568.           4451.          8000.          0.083         0.076
         576.           4451.          4000.          0.105         0.109
         576.           4455.          4000.          0.060         0.068
         580.           4455.          4000.          0.163         0.180
         580.           4451.          2000.          0.102         0.110
         582.           4451.          2000.          0.271         0.288
         580.           4453.          2000.          0.064         0.069
         582.           4453.          2000.          0.116         0.122
         584.           4455.          4000.          0.091         0.092
         584.           4451.          2000.          0.218         0.232
         584.           4453.          2000.          0.065         0.070
         586.           4453.          2000.          0.002         0.002
         548.           4459.          4000.          0.002         0.003
         552.           4459.          8000.          0.307         0.341
         560.           4459.          8000.          0.218         0.242
         568.           4459.          8000.          0.208         0.228
         576.           4459.          4000.          0.200         0.269
         580.           4459.          4000.          0.298         0.342
         580.           4463.          4000.          0.134         0.155
         576.           4463.          2000.          0.023         0.027
         578.           4463.          2000.          0.069         0.073
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AREA SOURCE EMISSIONS FOR MONMOUTH      COUNTY 1985     PAGE  2
         X            Y          SIDE           SO2          TSP
       (KM)         (KM)          (M)          (T/D)        (T/D)
       576.         4465.        2000.         0.072        0.078
       578.         4465.        2000.         0.160        0.162
       584.         4463.        4000.         0.100        0.099
       584.         4459.        2000.         0.145        0.150
       586.         4459.        2000.         0.032        0.033
       584.         4461.        2000.         0.156        0.157
       586.         4461.        2000.         0.065        0.068
       556.         4467.        4000.         0.020        0.023
       560.         4467.        4000.         0.042        0.045
       564.         4467.        4000.         0.063        0.070
       560.         4471.        4000.         0.029        0.032
       564.         4471.        4000.         0.314        0.336
       568.         4467.        4000.         0.132        0.153
       572.         4467.        4000.         0.084        0.090
       568.         4471.        4000.         0.177        0.193
       572.         4471.        2000.         0.035        0.037
       574.         4471.        2000.         0.048        0.048
       572.         4473.        2000.         0.130        0.129
       574.         4473.        2000.         0.061        0.063
       576.         4467.        4000.         0.173        0.162
       580.         4467.        4000.         0.127        0.108
       576.         4471.        4000.         0.231        0.171
       580.         4471.        4000.         0.132        0.144
       584.         4467.        8000.         0.182        0.163
       564.         4475.        4000.         0.235        0.240
       568.         4475.        4000.         0.213        0.229
       572.         4475.        4000.         0.254        0.271
       568.         4479.        4000.         0.001        0.002
       572.         4479.        4000.         0.006        0.006
       576.         4475.        4000.         0.056        0.058
       580.         4475.        4000.         0.008        0.012
       580.         4479.        4000.         0.003        0.010
       584.         4475.        4000.         0.004        0.012
       584.         4479.        4000.         0.004        0.013
```

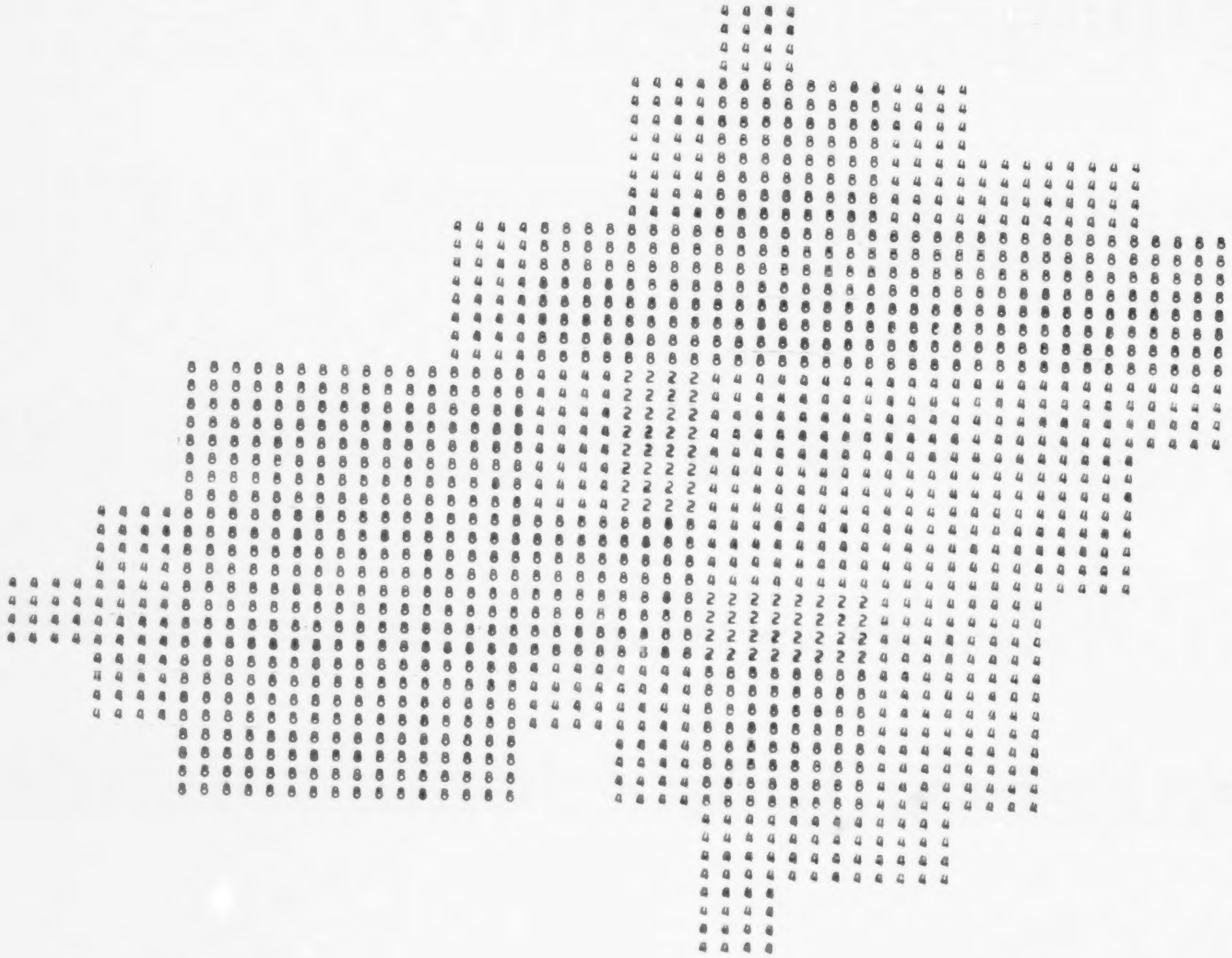
AREA SOURCE EMISSIONS FOR MONMOUTH COUNTY 2000 PAGE 1

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
536.	4435.	8000.	0.010	0.011
564.	4439.	4000.	0.062	0.071
568.	4435.	8000.	0.041	0.042
576.	4435.	8000.	0.334	0.341
532.	4443.	4000.	0.042	0.050
532.	4447.	4000.	0.035	0.040
536.	4443.	8000.	0.252	0.303
544.	4443.	8000.	0.009	0.009
552.	4443.	8000.	0.024	0.024
560.	4443.	8000.	0.294	0.323
568.	4443.	4000.	0.030	0.028
572.	4443.	4000.	0.021	0.029
568.	4447.	4000.	0.124	0.124
572.	4447.	4000.	0.100	0.106
576.	4443.	4000.	0.091	0.100
580.	4443.	4000.	0.306	0.297
576.	4447.	4000.	0.118	0.137
580.	4447.	4000.	0.627	0.491
584.	4443.	4000.	0.007	0.007
584.	4447.	4000.	0.232	0.102
540.	4451.	4000.	0.004	0.004
544.	4451.	8000.	0.088	0.100
552.	4451.	8000.	0.174	0.188
560.	4451.	4000.	0.156	0.175
564.	4451.	4000.	0.064	0.066
560.	4455.	4000.	0.248	0.389
564.	4455.	4000.	0.026	0.031
568.	4451.	8000.	0.125	0.115
576.	4451.	4000.	0.131	0.137
576.	4455.	4000.	0.085	0.099
580.	4455.	4000.	0.199	0.212
580.	4451.	2000.	0.114	0.120
582.	4451.	2000.	0.292	0.296
580.	4453.	2000.	0.077	0.079
582.	4453.	2000.	0.126	0.125
584.	4455.	4000.	0.103	0.093
584.	4451.	2000.	0.229	0.233
584.	4453.	2000.	0.071	0.071
586.	4453.	2000.	0.002	0.002
548.	4459.	4000.	0.004	0.005
552.	4459.	8000.	0.453	0.507
560.	4459.	8000.	0.304	0.341
568.	4459.	8000.	0.294	0.319
576.	4459.	4000.	0.232	0.296
580.	4459.	4000.	0.326	0.363
580.	4463.	4000.	0.156	0.165
576.	4463.	2000.	0.028	0.031
578.	4463.	2000.	0.077	0.077

AREA SOURCE EMISSIONS FOR MONMOUTH COUNTY 2000 PAGE 2

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
576.	4465.	2000.	0.084	0.087
578.	4465.	2000.	0.172	0.165
584.	4463.	4000.	0.116	0.106
584.	4459.	2000.	0.158	0.154
586.	4459.	2000.	0.034	0.033
584.	4461.	2000.	0.168	0.161
586.	4461.	2000.	0.069	0.069
556.	4467.	4000.	0.040	0.045
560.	4467.	4000.	0.055	0.056
564.	4467.	4000.	0.091	0.100
560.	4471.	4000.	0.035	0.037
564.	4471.	4000.	0.377	0.393
568.	4467.	4000.	0.196	0.225
572.	4467.	4000.	0.114	0.117
568.	4471.	4000.	0.247	0.262
572.	4471.	2000.	0.045	0.048
574.	4471.	2000.	0.062	0.061
572.	4473.	2000.	0.140	0.141
574.	4473.	2000.	0.074	0.074
576.	4467.	4000.	0.206	0.186
580.	4467.	4000.	0.157	0.123
576.	4471.	4000.	0.305	0.219
580.	4471.	4000.	0.167	0.181
584.	4467.	8000.	0.215	0.167
564.	4475.	4000.	0.267	0.267
568.	4475.	4000.	0.262	0.264
572.	4475.	4000.	0.301	0.298
568.	4479.	4000.	0.002	0.002
572.	4479.	4000.	0.006	0.006
576.	4475.	4000.	0.069	0.067
580.	4475.	4000.	0.009	0.013
580.	4479.	4000.	0.003	0.010
584.	4475.	4000.	0.003	0.011
584.	4479.	4000.	0.003	0.013

MASTER GRID SYSTEM FOR MORRIS   COUNTY, XMIN,YMIN= 507. 4498.



AREA SOURCE EMISSIONS FOR MORRIS COUNTY 1975 PAGE 1

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
539.	4498.	4000.	0.014	0.015
539.	4502.	4000.	0.058	0.058
543.	4502.	4000.	0.065	0.069
547.	4502.	4000.	0.005	0.006
511.	4510.	4000.	0.008	0.009
515.	4506.	8000.	0.022	0.027
523.	4506.	8000.	0.022	0.030
535.	4506.	4000.	0.002	0.003
531.	4510.	4000.	0.042	0.044
535.	4510.	4000.	0.003	0.003
539.	4506.	8000.	0.094	0.112
547.	4506.	4000.	0.095	0.107
551.	4506.	4000.	0.023	0.024
547.	4510.	4000.	0.360	0.380
551.	4510.	4000.	0.077	0.089
507.	4514.	4000.	0.001	0.001
511.	4514.	4000.	0.006	0.006
511.	4518.	4000.	0.007	0.007
515.	4514.	8000.	0.057	0.068
523.	4514.	8000.	0.087	0.105
531.	4514.	8000.	0.167	0.197
539.	4518.	4000.	0.197	0.202
543.	4518.	4000.	0.408	0.338
539.	4514.	2000.	0.015	0.015
541.	4514.	2000.	0.065	0.074
543.	4514.	2000.	0.151	0.148
545.	4514.	2000.	0.065	0.062
539.	4516.	2000.	0.007	0.008
541.	4516.	2000.	0.094	0.103
543.	4516.	2000.	0.232	0.224
545.	4516.	2000.	0.085	0.079
547.	4514.	4000.	0.186	0.176
551.	4514.	4000.	0.281	0.247
547.	4518.	4000.	0.323	0.284
551.	4518.	4000.	0.122	0.123
555.	4518.	4000.	0.017	0.018
515.	4522.	8000.	0.090	0.136
523.	4522.	8000.	0.289	0.307
531.	4522.	4000.	0.090	0.101
531.	4526.	4000.	0.109	0.102
535.	4522.	2000.	0.044	0.046
537.	4522.	2000.	0.009	0.011
535.	4524.	2000.	0.137	0.139
537.	4524.	2000.	0.125	0.112
535.	4526.	2000.	0.287	0.233
537.	4526.	2000.	0.117	0.107
535.	4528.	2000.	0.029	0.027
537.	4528.	2000.	0.016	0.019

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AREA SOURCE EMISSIONS FOR MORRIS          COUNTY 1975      PAGE  2
        X              Y           SIDE            SO2            TSP
      (KM)           (KM)           (M)           (T/D)          (T/D)
      539.           4522.         4000.          0.083          0.088
      543.           4522.         4000.          0.218          0.233
      539.           4526.         4000.          0.295          0.303
      543.           4526.         4000.          0.115          0.123
      547.           4522.         4000.          0.293          0.333
      551.           4522.         4000.          0.168          0.198
      547.           4526.         4000.          0.394          0.358
      551.           4526.         4000.          0.112          0.123
      555.           4522.         4000.          0.045          0.051
      555.           4526.         4000.          0.020          0.022
      559.           4526.         4000.          0.029          0.034
      527.           4530.         4000.          0.037          0.039
      527.           4534.         4000.          0.011          0.012
      531.           4530.         8000.          0.115          0.134
      539.           4530.         8000.          0.130          0.140
      547.           4530.         8000.          0.151          0.165
      555.           4530.         8000.          0.298          0.338
      535.           4538.         4000.          0.002          0.002
      535.           4542.         4000.          0.003          0.003
      539.           4538.         8000.          0.063          0.077
      547.           4538.         4000.          0.012          0.014
      551.           4538.         4000.          0.080          0.085
      547.           4542.         4000.          0.001          0.001
      555.           4538.         4000.          0.064          0.075
      539.           4546.         4000.          0.001          0.001
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AREA SOURCE EMISSIONS FOR MORRIS        COUNTY 1980      PAGE  1
            X           Y         SIDE          SO2          TSP
          (KM)        (KM)         (M)         (T/D)        (T/D)
          539.        4498.       4000.        0.018        0.021
          539.        4502.       4000.        0.067        0.074
          543.        4502.       4000.        0.080        0.098
          547.        4502.       4000.        0.006        0.008
          511.        4510.       4000.        0.008        0.011
          515.        4506.       8000.        0.026        0.032
          523.        4506.       8000.        0.026        0.031
          535.        4506.       4000.        0.003        0.003
          531.        4510.       4000.        0.041        0.045
          535.        4510.       4000.        0.002        0.003
          539.        4506.       8000.        0.104        0.126
          547.        4506.       4000.        0.105        0.123
          551.        4506.       4000.        0.025        0.027
          547.        4510.       4000.        0.382        0.425
          551.        4510.       4000.        0.081        0.099
          507.        4514.       4000.        0.001        0.002
          511.        4514.       4000.        0.006        0.008
          511.        4518.       4000.        0.005        0.007
          515.        4514.       8000.        0.066        0.075
          523.        4514.       8000.        0.098        0.107
          531.        4514.       8000.        0.175        0.211
          539.        4518.       4000.        0.215        0.239
          543.        4518.       4000.        0.466        0.436
          539.        4514.       2000.        0.015        0.017
          541.        4514.       2000.        0.072        0.085
          543.        4514.       2000.        0.155        0.171
          545.        4514.       2000.        0.070        0.071
          539.        4516.       2000.        0.008        0.010
          541.        4516.       2000.        0.100        0.118
          543.        4516.       2000.        0.241        0.258
          545.        4516.       2000.        0.093        0.092
          547.        4514.       4000.        0.204        0.206
          551.        4514.       4000.        0.274        0.259
          547.        4518.       4000.        0.349        0.325
          551.        4518.       4000.        0.128        0.136
          555.        4518.       4000.        0.018        0.020
          515.        4522.       8000.        0.106        0.119
          523.        4522.       8000.        0.321        0.340
          531.        4522.       4000.        0.102        0.112
          531.        4526.       4000.        0.120        0.116
          535.        4522.       2000.        0.046        0.056
          537.        4522.       2000.        0.011        0.014
          535.        4524.       2000.        0.139        0.154
          537.        4524.       2000.        0.132        0.123
          535.        4526.       2000.        0.299        0.254
          537.        4526.       2000.        0.123        0.117
          535.        4528.       2000.        0.034        0.035
          537.        4528.       2000.        0.020        0.025
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AREA SOURCE EMISSIONS FOR MORRIS          COUNTY 1980      PAGE  2
          X            Y          SIDE          SO2          TSP
        (KM)         (KM)          (M)         (T/D)        (T/D)
        539.        4522.        4000.         0.099        0.120
        543.        4522.        4000.         0.260        0.312
        539.        4526.        4000.         0.328        0.355
        543.        4526.        4000.         0.134        0.155
        547.        4522.        4000.         0.333        0.475
        551.        4522.        4000.         0.183        0.251
        547.        4526.        4000.         0.439        0.441
        551.        4526.        4000.         0.146        0.194
        555.        4522.        4000.         0.054        0.069
        555.        4526.        4000.         0.026        0.037
        559.        4526.        4000.         0.033        0.043
        527.        4530.        4000.         0.038        0.042
        527.        4534.        4000.         0.014        0.012
        531.        4530.        8000.         0.139        0.169
        539.        4530.        8000.         0.148        0.175
        547.        4530.        8000.         0.175        0.198
        555.        4530.        8000.         0.336        0.401
        535.        4538.        4000.         0.002        0.003
        535.        4542.        4000.         0.003        0.004
        539.        4538.        8000.         0.068        0.085
        547.        4538.        4000.         0.013        0.015
        551.        4538.        4000.         0.088        0.098
        547.        4542.        4000.         0.001        0.001
        555.        4538.        4000.         0.071        0.088
        539.        4546.        4000.         0.002        0.002
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AREA SOURCE EMISSIONS FOR MORRIS         COUNTY 1985       PAGE   1
            X            Y          SIDE           SO2          TSP
          (KM)         (KM)          (M)          (T/D)        (T/D)
          539.         4498.        4000.         0.022        0.026
          539.         4502.        4000.         0.081        0.088
          543.         4502.        4000.         0.107        0.121
          547.         4502.        4000.         0.007        0.009
          511.         4510.        4000.         0.010        0.011
          515.         4506.        8000.         0.029        0.035
          523.         4506.        8000.         0.026        0.031
          535.         4506.        4000.         0.004        0.004
          531.         4510.        4000.         0.041        0.046
          535.         4510.        4000.         0.003        0.004
          539.         4506.        8000.         0.112        0.129
          547.         4506.        4000.         0.110        0.123
          551.         4506.        4000.         0.026        0.027
          547.         4510.        4000.         0.401        0.423
          551.         4510.        4000.         0.085        0.094
          507.         4514.        4000.         0.002        0.002
          511.         4514.        4000.         0.007        0.010
          511.         4518.        4000.         0.006        0.006
          515.         4514.        8000.         0.077        0.077
          523.         4514.        8000.         0.108        0.112
          531.         4514.        8000.         0.196        0.216
          539.         4518.        4000.         0.229        0.249
          543.         4518.        4000.         0.537        0.494
          539.         4514.        2000.         0.015        0.016
          541.         4514.        2000.         0.075        0.084
          543.         4514.        2000.         0.157        0.157
          545.         4514.        2000.         0.074        0.072
          539.         4516.        2000.         0.010        0.010
          541.         4516.        2000.         0.105        0.115
          543.         4516.        2000.         0.245        0.240
          545.         4516.        2000.         0.098        0.097
          547.         4514.        4000.         0.228        0.231
          551.         4514.        4000.         0.284        0.269
          547.         4518.        4000.         0.382        0.354
          551.         4518.        4000.         0.140        0.139
          555.         4518.        4000.         0.019        0.021
          515.         4522.        8000.         0.123        0.132
          523.         4522.        8000.         0.362        0.374
          531.         4522.        4000.         0.104        0.112
          531.         4526.        4000.         0.126        0.117
          535.         4522.        2000.         0.050        0.054
          537.         4522.        2000.         0.012        0.013
          535.         4524.        2000.         0.146        0.145
          537.         4524.        2000.         0.136        0.124
          535.         4526.        2000.         0.308        0.255
          537.         4526.        2000.         0.128        0.117
          535.         4528.        2000.         0.039        0.039
          537.         4528.        2000.         0.024        0.029
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AREA SOURCE EMISSIONS FOR MORRIS        COUNTY 1985      PAGE  2
          X              Y           SIDE           SO2           TSP
        (KM)           (KM)           (M)          (T/D)         (T/D)
        539.           4522.         4000.          0.124         0.138
        543.           4522.         4000.          0.311         0.352
        539.           4526.         4000.          0.364         0.381
        543.           4526.         4000.          0.155         0.169
        547.           4522.         4000.          0.381         0.439
        551.           4522.         4000.          0.207         0.243
        547.           4526.         4000.          0.496         0.474
        551.           4526.         4000.          0.204         0.246
        555.           4522.         4000.          0.071         0.083
        555.           4526.         4000.          0.038         0.046
        559.           4526.         4000.          0.043         0.051
        527.           4530.         4000.          0.039         0.040
        527.           4534.         4000.          0.015         0.013
        531.           4530.         8000.          0.192         0.218
        539.           4530.         8000.          0.177         0.201
        547.           4530.         8000.          0.206         0.238
        555.           4530.         8000.          0.382         0.434
        535.           4538.         4000.          0.003         0.004
        535.           4542.         4000.          0.003         0.004
        539.           4538.         8000.          0.077         0.087
        547.           4538.         4000.          0.015         0.015
        551.           4538.         4000.          0.094         0.103
        547.           4542.         4000.          0.001         0.001
        555.           4538.         4000.          0.083         0.095
        539.           4546.         4000.          0.001         0.002
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AREA SOURCE EMISSIONS FOR MORRIS COUNTY 2000 PAGE 1

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
539.	4498.	4000.	0.029	0.043
539.	4502.	4000.	0.106	0.145
543.	4502.	4000.	0.149	0.213
547.	4502.	4000.	0.010	0.014
511.	4510.	4000.	0.013	0.013
515.	4506.	8000.	0.037	0.047
523.	4506.	8000.	0.028	0.046
535.	4506.	4000.	0.005	0.007
531.	4510.	4000.	0.041	0.055
535.	4510.	4000.	0.003	0.007
539.	4506.	8000.	0.128	0.166
547.	4506.	4000.	0.123	0.165
551.	4506.	4000.	0.029	0.035
547.	4510.	4000.	0.435	0.555
551.	4510.	4000.	0.090	0.119
507.	4514.	4000.	0.002	0.003
511.	4514.	4000.	0.010	0.013
511.	4518.	4000.	0.006	0.007
515.	4514.	8000.	0.093	0.103
523.	4514.	8000.	0.117	0.152
531.	4514.	8000.	0.213	0.295
539.	4518.	4000.	0.249	0.336
543.	4518.	4000.	0.650	0.737
539.	4514.	2000.	0.016	0.022
541.	4514.	2000.	0.083	0.112
543.	4514.	2000.	0.161	0.193
545.	4514.	2000.	0.082	0.097
539.	4516.	2000.	0.011	0.017
541.	4516.	2000.	0.112	0.148
543.	4516.	2000.	0.255	0.299
545.	4516.	2000.	0.111	0.130
547.	4514.	4000.	0.272	0.333
551.	4514.	4000.	0.304	0.351
547.	4518.	4000.	0.454	0.499
551.	4518.	4000.	0.159	0.191
555.	4518.	4000.	0.022	0.030
515.	4522.	8000.	0.156	0.207
523.	4522.	8000.	0.448	0.573
531.	4522.	4000.	0.120	0.150
531.	4526.	4000.	0.138	0.149
535.	4522.	2000.	0.054	0.074
537.	4522.	2000.	0.015	0.022
535.	4524.	2000.	0.155	0.184
537.	4524.	2000.	0.146	0.155
535.	4526.	2000.	0.324	0.304
537.	4526.	2000.	0.140	0.150
535.	4528.	2000.	0.052	0.065
537.	4528.	2000.	0.031	0.048

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AREA SOURCE EMISSIONS FOR MORRIS        COUNTY 2000      PAGE  2
            X            Y          SIDE            SO2          TSP
          (KM)         (KM)          (M)           (T/D)        (T/D)
          539.         4522.        4000.          0.158        0.231
          543.         4522.        4000.          0.392        0.552
          539.         4526.        4000.          0.425        0.548
          543.         4526.        4000.          0.188        0.260
          547.         4522.        4000.          0.454        0.636
          551.         4522.        4000.          0.250        0.361
          547.         4526.        4000.          0.596        0.699
          551.         4526.        4000.          0.302        0.459
          555.         4522.        4000.          0.101        0.149
          555.         4526.        4000.          0.052        0.084
          559.         4526.        4000.          0.056        0.084
          527.         4530.        4000.          0.041        0.049
          527.         4534.        4000.          0.017        0.016
          531.         4530.        8000.          0.347        0.475
          539.         4530.        8000.          0.240        0.335
          547.         4530.        8000.          0.275        0.382
          555.         4530.        8000.          0.479        0.662
          535.         4538.        4000.          0.004        0.006
          535.         4542.        4000.          0.004        0.006
          539.         4538.        8000.          0.091        0.125
          547.         4538.        4000.          0.015        0.025
          551.         4538.        4000.          0.107        0.146
          547.         4542.        4000.          0.001        0.001
          555.         4538.        4000.          0.103        0.151
          539.         4546.        4000.          0.002        0.002
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         MASTER GRID SYSTEM FOR PASSIAC      COUNTY, XMIN,YMIN=  540.  4519.

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                                        4 4 4 4 2 2 2 2 1 1 1 1 2 2
                                        4 4 4 4 2 2 2 2 1 1 1 1 2 2
                                        4 4 4 4 4 4 4 4 2 2 2 2 1
                                        4 4 4 4 4 4 4 4 2 2 2 2 1 1
                                        4 4 4 4 4 4 4 4 2 2 2 2 1 1 1
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                                                                2 2
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AREA SOURCE EMISSIONS FOR PASSIAC        COUNTY 1975      PAGE  1
          X             Y          SIDE          SO2          TSP
        (KM)          (KM)          (M)         (T/D)        (T/D)
        568.          4521.        2000.        0.028        0.028
        570.          4521.        2000.        0.263        0.252
        572.          4519.        2000.        0.162        0.128
        572.          4521.        1000.        0.043        0.042
        573.          4521.        1000.        0.060        0.060
        572.          4522.        1000.        0.100        0.084
        573.          4522.        1000.        0.126        0.108
        560.          4523.        4000.        0.129        0.102
        560.          4527.        4000.        0.345        0.302
        564.          4523.        4000.        0.258        0.236
        568.          4523.        2000.        0.124        0.109
        570.          4523.        2000.        0.338        0.310
        568.          4525.        2000.        0.114        0.102
        570.          4525.        2000.        0.228        0.220
        564.          4527.        2000.        0.131        0.114
        566.          4527.        2000.        0.107        0.101
        564.          4529.        2000.        0.060        0.055
        566.          4529.        2000.        0.181        0.166
        568.          4527.        1000.        0.008        0.007
        569.          4527.        1000.        0.094        0.078
        570.          4527.        1000.        0.100        0.091
        571.          4527.        1000.        0.064        0.062
        568.          4528.        1000.        0.131        0.118
        569.          4528.        1000.        0.121        0.113
        570.          4528.        1000.        0.123        0.126
        571.          4528.        1000.        0.109        0.108
        568.          4529.        1000.        0.095        0.080
        569.          4529.        1000.        0.170        0.156
        570.          4529.        1000.        0.176        0.171
        571.          4529.        1000.        0.073        0.075
        568.          4530.        1000.        0.124        0.119
        569.          4530.        1000.        0.251        0.175
        570.          4530.        1000.        0.197        0.201
        571.          4530.        1000.        0.062        0.063
        572.          4527.        2000.        0.122        0.111
        572.          4529.        2000.        0.134        0.130
        572.          4523.        1000.        0.100        0.100
        573.          4523.        1000.        0.190        0.168
        572.          4524.        1000.        0.144        0.136
        573.          4524.        1000.        0.139        0.125
        574.          4524.        1000.        0.179        0.290
        572.          4525.        1000.        0.109        0.102
        573.          4525.        1000.        0.083        0.079
        572.          4526.        1000.        0.039        0.036
        560.          4531.        4000.        0.192        0.162
        556.          4535.        4000.        0.023        0.021
        560.          4535.        4000.        0.093        0.084
        564.          4531.        4000.        0.183        0.176
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AREA SOURCE EMISSIONS FOR PASSIAC            COUNTY 1975      PAGE  2
           X              Y             SIDE           SO2           TSP
         (KM)           (KM)             (M)          (T/D)         (T/D)
         564.           4535.          4000.          0.021         0.021
         568.           4535.          4000.          0.081         0.076
         568.           4531.          2000.          0.216         0.207
         568.           4533.          2000.          0.061         0.055
         570.           4533.          2000.          0.152         0.134
         570.           4531.          1000.          0.127         0.131
         571.           4531.          1000.          0.082         0.080
         570.           4532.          1000.          0.052         0.050
         571.           4532.          1000.          0.068         0.067
         540.           4543.          4000.          0.002         0.002
         544.           4543.          4000.          0.014         0.011
         548.           4539.          8000.          0.057         0.049
         556.           4539.          8000.          0.242         0.213
         544.           4547.          4000.          0.002         0.002
         548.           4547.          8000.          0.048         0.042
         556.           4547.          8000.          0.073         0.067
         564.           4551.          4000.          0.005         0.004
         548.           4555.          8000.          0.064         0.056
         556.           4555.          4000.          0.003         0.003
         560.           4555.          4000.          0.003         0.003
         556.           4559.          4000.          0.003         0.003
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AREA SOURCE EMISSIONS FOR PASSIAC COUNTY 1980 PAGE 1

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
568.	4521.	2000.	0.027	0.034
570.	4521.	2000.	0.269	0.285
572.	4519.	2000.	0.177	0.157
572.	4521.	1000.	0.044	0.051
573.	4521.	1000.	0.062	0.074
572.	4522.	1000.	0.103	0.106
573.	4522.	1000.	0.130	0.139
560.	4523.	4000.	0.133	0.124
560.	4527.	4000.	0.358	0.352
564.	4523.	4000.	0.264	0.284
568.	4523.	2000.	0.126	0.130
570.	4523.	2000.	0.345	0.364
568.	4525.	2000.	0.112	0.116
570.	4525.	2000.	0.230	0.258
564.	4527.	2000.	0.135	0.142
566.	4527.	2000.	0.107	0.120
564.	4529.	2000.	0.059	0.061
566.	4529.	2000.	0.181	0.196
568.	4527.	1000.	0.008	0.009
569.	4527.	1000.	0.096	0.092
570.	4527.	1000.	0.102	0.106
571.	4527.	1000.	0.065	0.072
568.	4528.	1000.	0.134	0.138
569.	4528.	1000.	0.124	0.132
570.	4528.	1000.	0.121	0.146
571.	4528.	1000.	0.104	0.125
568.	4529.	1000.	0.098	0.095
569.	4529.	1000.	0.173	0.192
570.	4529.	1000.	0.175	0.208
571.	4529.	1000.	0.066	0.087
568.	4530.	1000.	0.127	0.143
569.	4530.	1000.	0.254	0.214
570.	4530.	1000.	0.199	0.240
571.	4530.	1000.	0.059	0.075
572.	4527.	2000.	0.125	0.127
572.	4529.	2000.	0.129	0.156
572.	4523.	1000.	0.102	0.119
573.	4523.	1000.	0.194	0.209
572.	4524.	1000.	0.149	0.167
573.	4524.	1000.	0.143	0.154
574.	4524.	1000.	0.183	0.327
572.	4525.	1000.	0.112	0.123
573.	4525.	1000.	0.085	0.093
572.	4526.	1000.	0.040	0.042
560.	4531.	4000.	0.190	0.210
556.	4535.	4000.	0.022	0.025
560.	4535.	4000.	0.095	0.102
564.	4531.	4000.	0.178	0.218

AREA SOURCE EMISSIONS FOR PASSIAC COUNTY 1980 PAGE 2

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
564.	4535.	4000.	0.021	0.023
568.	4535.	4000.	0.079	0.085
568.	4531.	2000.	0.220	0.242
568.	4533.	2000.	0.060	0.065
570.	4533.	2000.	0.152	0.150
570.	4531.	1000.	0.128	0.148
571.	4531.	1000.	0.081	0.092
570.	4532.	1000.	0.052	0.057
571.	4532.	1000.	0.069	0.075
540.	4543.	4000.	0.002	0.002
544.	4543.	4000.	0.012	0.011
548.	4539.	8000.	0.057	0.071
556.	4539.	8000.	0.254	0.291
544.	4547.	4000.	0.002	0.002
548.	4547.	8000.	0.048	0.055
556.	4547.	8000.	0.073	0.089
564.	4551.	4000.	0.006	0.005
548.	4555.	8000.	0.064	0.069
556.	4555.	4000.	0.003	0.003
560.	4555.	4000.	0.004	0.005
556.	4559.	4000.	0.003	0.004

AREA SOURCE EMISSIONS FOR PASSIAC COUNTY 1985 PAGE 1

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
568.	4521.	2000.	0.029	0.032
570.	4521.	2000.	0.271	0.276
572.	4519.	2000.	0.189	0.152
572.	4521.	1000.	0.044	0.046
573.	4521.	1000.	0.063	0.068
572.	4522.	1000.	0.103	0.093
573.	4522.	1000.	0.129	0.117
560.	4523.	4000.	0.137	0.123
560.	4527.	4000.	0.378	0.376
564.	4523.	4000.	0.277	0.284
568.	4523.	2000.	0.128	0.124
570.	4523.	2000.	0.349	0.348
568.	4525.	2000.	0.118	0.117
570.	4525.	2000.	0.236	0.245
564.	4527.	2000.	0.145	0.149
566.	4527.	2000.	0.113	0.117
564.	4529.	2000.	0.064	0.069
566.	4529.	2000.	0.186	0.186
568.	4527.	1000.	0.009	0.009
569.	4527.	1000.	0.097	0.087
570.	4527.	1000.	0.102	0.099
571.	4527.	1000.	0.065	0.067
568.	4528.	1000.	0.135	0.132
569.	4528.	1000.	0.124	0.126
570.	4528.	1000.	0.124	0.137
571.	4528.	1000.	0.108	0.117
568.	4529.	1000.	0.097	0.089
569.	4529.	1000.	0.172	0.168
570.	4529.	1000.	0.177	0.184
571.	4529.	1000.	0.072	0.082
568.	4530.	1000.	0.126	0.129
569.	4530.	1000.	0.252	0.187
570.	4530.	1000.	0.198	0.216
571.	4530.	1000.	0.062	0.068
572.	4527.	2000.	0.125	0.121
572.	4529.	2000.	0.135	0.142
572.	4523.	1000.	0.102	0.109
573.	4523.	1000.	0.192	0.182
572.	4524.	1000.	0.148	0.149
573.	4524.	1000.	0.142	0.136
574.	4524.	1000.	0.182	0.304
572.	4525.	1000.	0.112	0.112
573.	4525.	1000.	0.085	0.087
572.	4526.	1000.	0.041	0.040
560.	4531.	4000.	0.221	0.229
556.	4535.	4000.	0.024	0.026
560.	4535.	4000.	0.110	0.114
564.	4531.	4000.	0.196	0.215

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AREA SOURCE EMISSIONS FOR PASSIAC       COUNTY 1985     PAGE  2
      X            Y            SIDE          SO2          TSP
    (KM)         (KM)           (M)          (T/D)        (T/D)
    564.         4535.         4000.         0.021        0.024
    568.         4535.         4000.         0.087        0.088
    568.         4531.         2000.         0.224        0.234
    568.         4533.         2000.         0.068        0.072
    570.         4533.         2000.         0.161        0.154
    570.         4531.         1000.         0.128        0.142
    571.         4531.         1000.         0.082        0.087
    570.         4532.         1000.         0.053        0.056
    571.         4532.         1000.         0.069        0.073
    540.         4543.         4000.         0.006        0.005
    544.         4543.         4000.         0.016        0.015
    548.         4539.         8000.         0.071        0.081
    556.         4539.         8000.         0.310        0.342
    544.         4547.         4000.         0.002        0.002
    548.         4547.         8000.         0.053        0.056
    556.         4547.         8000.         0.084        0.091
    564.         4551.         4000.         0.007        0.006
    548.         4555.         8000.         0.067        0.068
    556.         4555.         4000.         0.003        0.003
    560.         4555.         4000.         0.008        0.009
    556.         4559.         4000.         0.003        0.004
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AREA SOURCE EMISSIONS FOR PASSAIC        COUNTY 2000      PAGE  1
       X            Y          SIDE           SO2          TSP
     (KM)         (KM)          (M)          (T/D)        (T/D)
     568.         4521.       2000.          0.031        0.033
     570.         4521.       2000.          0.284        0.288
     572.         4519.       2000.          0.231        0.178
     572.         4521.       1000.          0.046        0.048
     573.         4521.       1000.          0.068        0.072
     572.         4522.       1000.          0.106        0.094
     573.         4522.       1000.          0.132        0.117
     560.         4523.       4000.          0.143        0.130
     560.         4527.       4000.          0.435        0.429
     564.         4523.       4000.          0.310        0.311
     568.         4523.       2000.          0.136        0.127
     570.         4523.       2000.          0.366        0.361
     568.         4525.       2000.          0.128        0.126
     570.         4525.       2000.          0.251        0.259
     564.         4527.       2000.          0.166        0.168
     566.         4527.       2000.          0.123        0.124
     564.         4529.       2000.          0.083        0.087
     566.         4529.       2000.          0.198        0.195
     568.         4527.       1000.          0.010        0.011
     569.         4527.       1000.          0.100        0.089
     570.         4527.       1000.          0.106        0.101
     571.         4527.       1000.          0.068        0.069
     568.         4528.       1000.          0.139        0.134
     569.         4528.       1000.          0.128        0.129
     570.         4528.       1000.          0.133        0.144
     571.         4528.       1000.          0.116        0.124
     568.         4529.       1000.          0.100        0.090
     569.         4529.       1000.          0.176        0.169
     570.         4529.       1000.          0.185        0.188
     571.         4529.       1000.          0.080        0.089
     568.         4530.       1000.          0.131        0.130
     569.         4530.       1000.          0.257        0.188
     570.         4530.       1000.          0.206        0.219
     571.         4530.       1000.          0.066        0.071
     572.         4527.       2000.          0.128        0.123
     572.         4529.       2000.          0.145        0.148
     572.         4523.       1000.          0.107        0.112
     573.         4523.       1000.          0.196        0.182
     572.         4524.       1000.          0.154        0.152
     573.         4524.       1000.          0.145        0.136
     574.         4524.       1000.          0.186        0.305
     572.         4525.       1000.          0.116        0.114
     573.         4525.       1000.          0.087        0.088
     572.         4526.       1000.          0.043        0.041
     560.         4531.       4000.          0.271        0.275
     556.         4535.       4000.          0.028        0.029
     560.         4535.       4000.          0.139        0.144
     564.         4531.       4000.          0.224        0.236
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AREA SOURCE EMISSIONS FOR PASSIAC        COUNTY 2000     PAGE  2
            X           Y          SIDE           SO2          TSP
          (KM)        (KM)          (M)          (T/D)        (T/D)
          564.        4535.        4000.         0.025        0.026
          568.        4535.        4000.         0.096        0.096
          568.        4531.        2000.         0.237        0.242
          568.        4533.        2000.         0.081        0.086
          570.        4533.        2000.         0.174        0.165
          570.        4531.        1000.         0.134        0.145
          571.        4531.        1000.         0.085        0.089
          570.        4532.        1000.         0.056        0.058
          571.        4532.        1000.         0.072        0.074
          540.        4543.        4000.         0.008        0.005
          544.        4543.        4000.         0.017        0.017
          548.        4539.        8000.         0.091        0.099
          556.        4539.        8000.         0.412        0.445
          544.        4547.        4000.         0.002        0.002
          548.        4547.        8000.         0.069        0.078
          556.        4547.        8000.         0.099        0.106
          564.        4551.        4000.         0.008        0.007
          548.        4555.        8000.         0.076        0.074
          556.        4555.        4000.         0.003        0.004
          560.        4555.        4000.         0.012        0.014
          556.        4559.        4000.         0.004        0.004
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MASTER GRID SYSTEM FOR SOMERSET     COUNTY, XMIN,YMIN=   517.  4468.


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4 4 4 4 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 4 4 4 4 4 4 4 4
4 4 4 4 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 4 4 4 4 4 4 4 4
4 4 4 4 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 4 4 4 4 4 4 4 4
4 4 4 4 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 4 4 4 4 4 4 4 4
4 4 4 4 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
4 4 4 4 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
4 4 4 4 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
4 4 4 4 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
        8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
        8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
        8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
        8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
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AREA SOURCE EMISSIONS FOR SOMERSET      COUNTY 1975      PAGE  1
              X           Y          SIDE          SO2          TSP
            (KM)        (KM)          (M)         (T/D)        (T/D)
            517.        4472.        4000.         0.001        0.001
            521.        4468.        8000.         0.162        0.109
            529.        4468.        8000.         0.169        0.120
            517.        4476.        4000.         0.001        0.001
            517.        4480.        4000.         0.0          0.004
            521.        4476.        8000.         0.090        0.083
            529.        4476.        8000.         0.109        0.093
            537.        4476.        4000.         0.033        0.023
            541.        4476.        4000.         0.012        0.008
            537.        4480.        4000.         0.047        0.035
            541.        4480.        4000.         0.388        0.298
            545.        4482.        2000.         0.152        0.105
            517.        4484.        4000.         0.005        0.003
            521.        4484.        8000.         0.248        0.200
            529.        4484.        4000.         0.152        0.123
            533.        4484.        4000.         0.255        0.207
            529.        4488.        2000.         0.012        0.011
            531.        4488.        2000.         0.112        0.079
            533.        4488.        2000.         0.181        0.376
            535.        4488.        2000.         0.247        0.220
            529.        4490.        2000.         0.301        0.213
            531.        4490.        2000.         0.353        0.249
            533.        4490.        2000.         0.284        0.226
            535.        4490.        2000.         0.377        0.264
            537.        4484.        4000.         0.086        0.079
            541.        4484.        4000.         0.191        0.147
            537.        4488.        2000.         0.230        0.208
            539.        4488.        2000.         0.156        0.148
            537.        4490.        2000.         0.153        0.275
            539.        4490.        2000.         0.107        0.078
            521.        4492.        8000.         0.235        0.174
            529.        4492.        8000.         0.695        0.518
            537.        4492.        8000.         0.743        0.527
            545.        4492.        4000.         0.055        0.047
            549.        4496.        4000.         0.080        0.056
            545.        4496.        2000.         0.201        0.148
            547.        4496.        2000.         0.434        0.305
            545.        4498.        2000.         0.062        0.047
            547.        4498.        2000.         0.139        0.106
            521.        4500.        8000.         0.297        0.198
            529.        4500.        8000.         0.592        0.419
            537.        4500.        4000.         0.063        0.049
            541.        4500.        4000.         0.060        0.044
            537.        4504.        4000.         0.100        0.074
            545.        4500.        4000.         0.102        0.079
            549.        4500.        4000.         0.068        0.046
            525.        4508.        4000.         0.029        0.018
            529.        4508.        4000.         0.020        0.014
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AREA SOURCE EMISSIONS FOR SOMERSET      COUNTY 1975    PAGE  2
         X            Y          SIDE          SO2         TSP
       (KM)         (KM)          (M)         (T/D)       (T/D)
       533.        4508.        4000.         0.146       0.098
       537.        4508.        4000.         0.017       0.012
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AREA SOURCE EMISSIONS FOR SOMERSET COUNTY 1980 PAGE 1

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
517.	4472.	4000.	0.001	0.001
521.	4468.	8000.	0.183	0.137
529.	4468.	8000.	0.193	0.161
517.	4476.	4000.	0.002	0.001
517.	4480.	4000.	0.0	0.005
521.	4476.	8000.	0.122	0.132
529.	4476.	8000.	0.139	0.143
537.	4476.	4000.	0.040	0.037
541.	4476.	4000.	0.012	0.010
537.	4480.	4000.	0.055	0.047
541.	4480.	4000.	0.403	0.359
545.	4482.	2000.	0.150	0.115
517.	4484.	4000.	0.005	0.003
521.	4484.	8000.	0.304	0.285
529.	4484.	4000.	0.166	0.154
533.	4484.	4000.	0.273	0.251
529.	4488.	2000.	0.012	0.011
531.	4488.	2000.	0.114	0.088
533.	4488.	2000.	0.186	0.401
535.	4488.	2000.	0.245	0.252
529.	4490.	2000.	0.303	0.237
531.	4490.	2000.	0.355	0.283
533.	4490.	2000.	0.290	0.261
535.	4490.	2000.	0.364	0.281
537.	4484.	4000.	0.110	0.122
541.	4484.	4000.	0.205	0.181
537.	4488.	2000.	0.224	0.237
539.	4488.	2000.	0.159	0.178
537.	4490.	2000.	0.155	0.296
539.	4490.	2000.	0.107	0.089
521.	4492.	8000.	0.255	0.229
529.	4492.	8000.	0.742	0.626
537.	4492.	8000.	0.758	0.598
545.	4492.	4000.	0.053	0.058
549.	4496.	4000.	0.075	0.059
545.	4496.	2000.	0.203	0.177
547.	4496.	2000.	0.406	0.330
545.	4498.	2000.	0.059	0.053
547.	4498.	2000.	0.137	0.123
521.	4500.	8000.	0.291	0.210
529.	4500.	8000.	0.593	0.466
537.	4500.	4000.	0.066	0.058
541.	4500.	4000.	0.073	0.064
537.	4504.	4000.	0.101	0.083
545.	4500.	4000.	0.097	0.085
549.	4500.	4000.	0.064	0.049
525.	4508.	4000.	0.027	0.018
529.	4508.	4000.	0.018	0.015

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AREA SOURCE EMISSIONS FOR SOMERSET       COUNTY 1980      PAGE  2
        X            Y          SIDE          SO2          TSP
      (KM)         (KM)          (M)         (T/D)        (T/D)
      533.         4508.        4000.        0.146        0.107
      537.         4508.        4000.        0.021        0.016
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AREA SOURCE EMISSIONS FOR SOMERSET       COUNTY 1985      PAGE   1
             X              Y            SIDE               SO2             TSP
           (KM)           (KM)            (M)              (T/D)           (T/D)
           517.          4472.          4000.              0.001           0.001
           521.          4468.          8000.              0.241           0.185
           529.          4468.          8000.              0.235           0.197
           517.          4476.          4000.              0.002           0.001
           517.          4480.          4000.              0.001           0.006
           521.          4476.          8000.              0.175           0.181
           529.          4476.          8000.              0.231           0.232
           537.          4476.          4000.              0.061           0.051
           541.          4476.          4000.              0.018           0.013
           537.          4480.          4000.              0.075           0.069
           541.          4480.          4000.              0.426           0.368
           545.          4482.          2000.              0.152           0.113
           517.          4484.          4000.              0.005           0.003
           521.          4484.          8000.              0.384           0.364
           529.          4484.          4000.              0.213           0.198
           533.          4484.          4000.              0.329           0.300
           529.          4488.          2000.              0.013           0.012
           531.          4488.          2000.              0.122           0.092
           533.          4488.          2000.              0.200           0.410
           535.          4488.          2000.              0.250           0.257
           529.          4490.          2000.              0.306           0.235
           531.          4490.          2000.              0.360           0.275
           533.          4490.          2000.              0.291           0.253
           535.          4490.          2000.              0.366           0.280
           537.          4484.          4000.              0.160           0.180
           541.          4484.          4000.              0.245           0.214
           537.          4488.          2000.              0.231           0.241
           539.          4488.          2000.              0.168           0.183
           537.          4490.          2000.              0.161           0.297
           539.          4490.          2000.              0.109           0.086
           521.          4492.          8000.              0.316           0.281
           529.          4492.          8000.              0.831           0.697
           537.          4492.          8000.              0.810           0.641
           545.          4492.          4000.              0.054           0.051
           549.          4496.          4000.              0.075           0.058
           545.          4496.          2000.              0.217           0.175
           547.          4496.          2000.              0.412           0.315
           545.          4498.          2000.              0.062           0.053
           547.          4498.          2000.              0.146           0.121
           521.          4500.          8000.              0.295           0.211
           529.          4500.          8000.              0.622           0.487
           537.          4500.          4000.              0.068           0.059
           541.          4500.          4000.              0.092           0.083
           537.          4504.          4000.              0.108           0.085
           545.          4500.          4000.              0.099           0.085
           549.          4500.          4000.              0.065           0.050
           525.          4508.          4000.              0.027           0.018
           529.          4508.          4000.              0.018           0.014
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AREA SOURCE EMISSIONS FOR SOMERSET      COUNTY 1985     PAGE  2
        X            Y           SIDE         SO2          TSP
       (KM)         (KM)          (M)        (T/D)        (T/D)
       533.        4508.        4000.        0.146        0.106
       537.        4508.        4000.        0.025        0.023
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AREA SOURCE EMISSIONS FOR SOMERSET COUNTY 2000

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
517.	4472.	4000.	0.001	0.001
521.	4468.	8000.	0.390	0.281
529.	4468.	8000.	0.307	0.253
517.	4476.	4000.	0.002	0.001
517.	4480.	4000.	0.006	0.006
521.	4476.	8000.	0.256	0.240
529.	4476.	8000.	0.431	0.385
537.	4476.	4000.	0.083	0.070
541.	4476.	4000.	0.019	0.016
537.	4480.	4000.	0.119	0.098
541.	4480.	4000.	0.472	0.378
545.	4482.	2000.	0.160	0.109
517.	4484.	4000.	0.006	0.004
521.	4484.	8000.	0.509	0.448
529.	4484.	4000.	0.301	0.263
533.	4484.	4000.	0.464	0.374
529.	4488.	2000.	0.016	0.012
531.	4488.	2000.	0.138	0.097
533.	4488.	2000.	0.225	0.411
535.	4488.	2000.	0.249	0.234
529.	4490.	2000.	0.308	0.218
531.	4490.	2000.	0.357	0.253
533.	4490.	2000.	0.286	0.227
535.	4490.	2000.	0.361	0.257
537.	4484.	4000.	0.254	0.252
541.	4484.	4000.	0.344	0.265
537.	4488.	2000.	0.233	0.222
539.	4488.	2000.	0.180	0.176
537.	4490.	2000.	0.173	0.289
539.	4490.	2000.	0.109	0.079
521.	4492.	8000.	0.438	0.368
529.	4492.	8000.	0.965	0.768
537.	4492.	8000.	0.879	0.649
545.	4492.	4000.	0.055	0.046
549.	4496.	4000.	0.077	0.054
545.	4496.	2000.	0.245	0.177
547.	4496.	2000.	0.434	0.303
545.	4498.	2000.	0.068	0.052
547.	4498.	2000.	0.171	0.127
521.	4500.	8000.	0.295	0.199
529.	4500.	8000.	0.685	0.498
537.	4500.	4000.	0.074	0.057
541.	4500.	4000.	0.124	0.102
537.	4504.	4000.	0.118	0.087
545.	4500.	4000.	0.103	0.078
549.	4500.	4000.	0.069	0.049
525.	4508.	4000.	0.026	0.018
529.	4508.	4000.	0.018	0.013

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AREA SOURCE EMISSIONS FOR SOMERSET      COUNTY 2000      PAGE  2
          X             Y           SIDE           SO2          TSP
        (KM)          (KM)           (M)          (T/D)        (T/D)
        533.          4508.         4000.         0.145        0.099
        537.          4508.         4000.         0.036        0.028
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MASTER GRID SYSTEM FOR UNION        COUNTY, XMIN,YMIN=   543.  4493.

                4 4 4 4
                4 4 4 4
                4 4 4 4
                4 4 4 4
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        4 4 4 4 2 2 2 2 4 4 4 4 2 2 2 2
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4 4 4 4 2 2 2 2 4 4 4 4 4 4 4 4 2 2 2 2 2 2 1 1 1 1 2 2 2 2
4 4 4 4 2 2 2 2 4 4 4 4 4 4 4 4 2 2 2 2 2 2 1 1 1 1 2 2 2 2
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            2 2 4 4 4 4 2 2 2 2 2 2 2 2 2 2 1 1 1 1 2 2
            2 2 4 4 4 4 2 2 2 2 2 2 2 2 2 2 2 2 2 2
            2 2 4 4 4 4 2 2 2 2 2 2 2 2 2 2 2 2 2 2
4 4 4 4 2 2 2 2 4 4 4 4 4 4 4 4 2 2 2 2 4 4 4 4 4 4 4 4
4 4 4 4 2 2 2 2 4 4 4 4 4 4 4 4 2 2 2 2 4 4 4 4 4 4 4 4
4 4 4 4         4 4 4 4 4 4 4 4 2 2 2 2 4 4 4 4 4 4 4 4
4 4 4 4         4 4 4 4 4 4 4 4 2 2 2 2 4 4 4 4 4 4 4 4
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AREA SOURCE EMISSIONS FOR UNION COUNTY 1975 PAGE 1

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
543.	4493.	4000.	0.103	0.090
547.	4495.	2000.	0.180	0.159
549.	4495.	2000.	0.132	0.114
551.	4493.	4000.	0.047	0.037
555.	4493.	4000.	0.085	0.072
563.	4493.	4000.	0.346	0.332
559.	4493.	2000.	0.086	0.076
561.	4493.	2000.	0.033	0.032
559.	4495.	2000.	0.167	0.146
561.	4495.	2000.	0.268	0.267
567.	4493.	4000.	0.131	0.011
543.	4501.	4000.	0.039	0.032
549.	4497.	2000.	0.127	0.104
549.	4499.	2000.	0.049	0.041
547.	4501.	2000.	0.015	0.012
549.	4501.	2000.	0.031	0.024
547.	4503.	2000.	0.061	0.052
549.	4503.	2000.	0.081	0.075
551.	4497.	4000.	0.316	0.249
551.	4501.	4000.	0.164	0.135
555.	4501.	4000.	0.346	0.319
555.	4497.	2000.	0.074	0.058
557.	4497.	2000.	0.126	0.119
555.	4499.	2000.	0.116	0.097
557.	4499.	2000.	0.145	0.119
559.	4497.	2000.	0.130	0.105
561.	4497.	2000.	0.190	0.157
563.	4497.	2000.	0.116	0.103
565.	4497.	2000.	0.136	0.103
559.	4499.	2000.	0.141	0.121
561.	4499.	2000.	0.175	0.144
563.	4499.	2000.	0.210	0.183
559.	4501.	2000.	0.144	0.122
561.	4501.	2000.	0.183	0.155
563.	4501.	2000.	0.227	0.192
559.	4503.	2000.	0.135	0.123
561.	4503.	2000.	0.135	0.113
563.	4503.	2000.	0.138	0.131
565.	4499.	1000.	0.065	0.059
566.	4499.	1000.	0.058	0.053
565.	4500.	1000.	0.085	0.081
566.	4500.	1000.	0.097	0.085
565.	4501.	1000.	0.126	0.116
566.	4501.	1000.	0.077	0.070
565.	4502.	1000.	0.087	0.077
566.	4502.	1000.	0.085	0.074
565.	4503.	1000.	0.037	0.035
566.	4503.	1000.	0.080	0.076

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AREA SOURCE EMISSIONS FOR UNION          COUNTY 1975      PAGE  2
          X           Y        SIDE          SO2          TSP
        (KM)        (KM)        (M)         (T/D)        (T/D)
        565.       4504.      1000.         0.053        0.046
        566.       4504.      1000.         0.086        0.082
        567.       4497.      2000.         0.159        0.029
        569.       4499.      2000.         0.036        0.034
        569.       4501.      2000.         0.051        0.052
        571.       4501.      2000.         0.111        0.064
        569.       4503.      2000.         0.199        0.164
        571.       4503.      2000.         0.107        0.072
        567.       4499.      1000.         0.052        0.045
        568.       4499.      1000.         0.065        0.057
        567.       4500.      1000.         0.083        0.071
        568.       4500.      1000.         0.071        0.064
        567.       4501.      1000.         0.071        0.072
        568.       4501.      1000.         0.056        0.057
        567.       4502.      1000.         0.086        0.086
        568.       4502.      1000.         0.025        0.026
        567.       4503.      1000.         0.040        0.040
        568.       4503.      1000.         0.016        0.040
        567.       4504.      1000.         0.073        0.075
        568.       4504.      1000.         0.061        0.046
        547.       4505.      4000.         0.103        0.084
        555.       4505.      4000.         0.341        0.297
        551.       4509.      4000.         0.042        0.039
        551.       4505.      2000.         0.065        0.053
        553.       4505.      2000.         0.061        0.053
        551.       4507.      2000.         0.096        0.084
        553.       4507.      2000.         0.120        0.105
        559.       4505.      2000.         0.157        0.138
        561.       4505.      2000.         0.189        0.167
        559.       4507.      2000.         0.064        0.054
        561.       4507.      2000.         0.110        0.093
        563.       4505.      1000.         0.066        0.059
        564.       4505.      1000.         0.066        0.059
        565.       4505.      1000.         0.063        0.054
        566.       4505.      1000.         0.074        0.065
        563.       4506.      1000.         0.060        0.053
        564.       4506.      1000.         0.086        0.074
        565.       4506.      1000.         0.112        0.094
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AREA SOURCE EMISSIONS FOR UNION         COUNTY 1980     PAGE  1
          X           Y          SIDE          SO2         TSP
        (KM)        (KM)         (M)          (T/D)       (T/D)
        543.        4493.       4000.         0.111       0.114
        547.        4495.       2000.         0.187       0.191
        549.        4495.       2000.         0.140       0.137
        551.        4493.       4000.         0.049       0.045
        555.        4493.       4000.         0.089       0.085
        563.        4493.       4000.         0.356       0.376
        559.        4493.       2000.         0.091       0.088
        561.        4493.       2000.         0.034       0.037
        559.        4495.       2000.         0.175       0.166
        561.        4495.       2000.         0.276       0.298
        567.        4493.       4000.         0.163       0.017
        543.        4501.       4000.         0.042       0.037
        549.        4497.       2000.         0.134       0.122
        549.        4499.       2000.         0.053       0.047
        547.        4501.       2000.         0.016       0.014
        549.        4501.       2000.         0.033       0.031
        547.        4503.       2000.         0.066       0.060
        549.        4503.       2000.         0.084       0.088
        551.        4497.       4000.         0.336       0.281
        551.        4501.       4000.         0.176       0.149
        555.        4501.       4000.         0.359       0.361
        555.        4497.       2000.         0.077       0.066
        557.        4497.       2000.         0.133       0.138
        555.        4499.       2000.         0.123       0.110
        557.        4499.       2000.         0.154       0.135
        559.        4497.       2000.         0.136       0.118
        561.        4497.       2000.         0.198       0.179
        563.        4497.       2000.         0.120       0.123
        565.        4497.       2000.         0.137       0.128
        559.        4499.       2000.         0.148       0.141
        561.        4499.       2000.         0.183       0.170
        563.        4499.       2000.         0.220       0.220
        559.        4501.       2000.         0.152       0.147
        561.        4501.       2000.         0.195       0.188
        563.        4501.       2000.         0.238       0.245
        559.        4503.       2000.         0.140       0.137
        561.        4503.       2000.         0.140       0.127
        563.        4503.       2000.         0.143       0.148
        565.        4499.       1000.         0.064       0.069
        566.        4499.       1000.         0.057       0.062
        565.        4500.       1000.         0.083       0.108
        566.        4500.       1000.         0.094       0.100
        565.        4501.       1000.         0.125       0.158
        566.        4501.       1000.         0.075       0.092
        565.        4502.       1000.         0.085       0.105
        566.        4502.       1000.         0.082       0.104
        565.        4503.       1000.         0.036       0.043
        566.        4503.       1000.         0.079       0.105
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AREA SOURCE EMISSIONS FOR UNION          COUNTY 1980      PAGE  2
           X          Y         SIDE           SO2           TSP
         (KM)       (KM)         (M)          (T/D)         (T/D)
         565.       4504.       1000.         0.053         0.052
         566.       4504.       1000.         0.084         0.107
         567.       4497.       2000.         0.193         0.035
         569.       4499.       2000.         0.037         0.042
         569.       4501.       2000.         0.052         0.060
         571.       4501.       2000.         0.123         0.074
         569.       4503.       2000.         0.209         0.161
         571.       4503.       2000.         0.118         0.080
         567.       4499.       1000.         0.051         0.056
         568.       4499.       1000.         0.064         0.074
         567.       4500.       1000.         0.081         0.085
         568.       4500.       1000.         0.071         0.079
         567.       4501.       1000.         0.070         0.088
         568.       4501.       1000.         0.057         0.068
         567.       4502.       1000.         0.086         0.108
         568.       4502.       1000.         0.025         0.032
         567.       4503.       1000.         0.040         0.055
         568.       4503.       1000.         0.016         0.041
         567.       4504.       1000.         0.072         0.101
         568.       4504.       1000.         0.065         0.046
         547.       4505.       4000.         0.109         0.098
         555.       4505.       4000.         0.356         0.337
         551.       4509.       4000.         0.044         0.044
         551.       4505.       2000.         0.067         0.063
         553.       4505.       2000.         0.064         0.061
         551.       4507.       2000.         0.103         0.101
         553.       4507.       2000.         0.125         0.124
         559.       4505.       2000.         0.166         0.157
         561.       4505.       2000.         0.198         0.191
         559.       4507.       2000.         0.067         0.061
         561.       4507.       2000.         0.115         0.109
         563.       4505.       1000.         0.069         0.067
         564.       4505.       1000.         0.068         0.066
         565.       4505.       1000.         0.065         0.064
         566.       4505.       1000.         0.076         0.081
         563.       4506.       1000.         0.063         0.062
         564.       4506.       1000.         0.089         0.089
         565.       4506.       1000.         0.114         0.118
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AREA SOURCE EMISSIONS FOR UNION COUNTY 1985 PAGE 1

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
543.	4493.	4000.	0.106	0.100
547.	4495.	2000.	0.177	0.169
549.	4495.	2000.	0.130	0.120
551.	4493.	4000.	0.048	0.042
555.	4493.	4000.	0.087	0.080
563.	4493.	4000.	0.370	0.386
559.	4493.	2000.	0.087	0.082
561.	4493.	2000.	0.034	0.037
559.	4495.	2000.	0.167	0.155
561.	4495.	2000.	0.270	0.291
567.	4493.	4000.	0.187	0.020
543.	4501.	4000.	0.040	0.037
549.	4497.	2000.	0.125	0.110
549.	4499.	2000.	0.051	0.045
547.	4501.	2000.	0.017	0.015
549.	4501.	2000.	0.037	0.034
547.	4503.	2000.	0.067	0.063
549.	4503.	2000.	0.087	0.091
551.	4497.	4000.	0.320	0.272
551.	4501.	4000.	0.168	0.147
555.	4501.	4000.	0.348	0.353
555.	4497.	2000.	0.074	0.064
557.	4497.	2000.	0.129	0.133
555.	4499.	2000.	0.117	0.107
557.	4499.	2000.	0.148	0.131
559.	4497.	2000.	0.130	0.112
561.	4497.	2000.	0.187	0.165
563.	4497.	2000.	0.119	0.120
565.	4497.	2000.	0.146	0.129
559.	4499.	2000.	0.144	0.134
561.	4499.	2000.	0.174	0.153
563.	4499.	2000.	0.208	0.194
559.	4501.	2000.	0.150	0.141
561.	4501.	2000.	0.187	0.168
563.	4501.	2000.	0.224	0.203
559.	4503.	2000.	0.138	0.137
561.	4503.	2000.	0.136	0.125
563.	4503.	2000.	0.139	0.140
565.	4499.	1000.	0.064	0.063
566.	4499.	1000.	0.058	0.057
565.	4500.	1000.	0.085	0.088
566.	4500.	1000.	0.097	0.091
565.	4501.	1000.	0.126	0.125
566.	4501.	1000.	0.077	0.076
565.	4502.	1000.	0.085	0.082
566.	4502.	1000.	0.083	0.077
565.	4503.	1000.	0.037	0.037
566.	4503.	1000.	0.079	0.081

AREA SOURCE EMISSIONS FOR UNION COUNTY 1985 PAGE 2

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
565.	4504.	1000.	0.054	0.050
566.	4504.	1000.	0.085	0.089
567.	4497.	2000.	0.215	0.036
569.	4499.	2000.	0.040	0.043
569.	4501.	2000.	0.057	0.064
571.	4501.	2000.	0.131	0.072
569.	4503.	2000.	0.248	0.183
571.	4503.	2000.	0.125	0.080
567.	4499.	1000.	0.053	0.050
568.	4499.	1000.	0.067	0.064
567.	4500.	1000.	0.083	0.077
568.	4500.	1000.	0.074	0.075
567.	4501.	1000.	0.075	0.086
568.	4501.	1000.	0.061	0.070
567.	4502.	1000.	0.091	0.102
568.	4502.	1000.	0.027	0.032
567.	4503.	1000.	0.040	0.044
568.	4503.	1000.	0.017	0.043
567.	4504.	1000.	0.073	0.083
568.	4504.	1000.	0.078	0.052
547.	4505.	4000.	0.111	0.100
555.	4505.	4000.	0.343	0.322
551.	4509.	4000.	0.045	0.045
551.	4505.	2000.	0.065	0.055
553.	4505.	2000.	0.061	0.055
551.	4507.	2000.	0.101	0.095
553.	4507.	2000.	0.121	0.112
559.	4505.	2000.	0.162	0.155
561.	4505.	2000.	0.190	0.183
559.	4507.	2000.	0.064	0.058
561.	4507.	2000.	0.109	0.100
563.	4505.	1000.	0.066	0.065
564.	4505.	1000.	0.066	0.065
565.	4505.	1000.	0.062	0.057
566.	4505.	1000.	0.071	0.067
563.	4506.	1000.	0.060	0.058
564.	4506.	1000.	0.083	0.078
565.	4506.	1000.	0.105	0.095

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AREA SOURCE EMISSIONS FOR UNION          COUNTY 2000      PAGE   1
             X            Y           SIDE          SO2          TSP
           (KM)         (KM)           (M)         (T/D)        (T/D)
           543.         4493.         4000.        0.112        0.099
           547.         4495.         2000.        0.180        0.162
           549.         4495.         2000.        0.133        0.115
           551.         4493.         4000.        0.053        0.044
           555.         4493.         4000.        0.092        0.080
           563.         4493.         4000.        0.404        0.409
           559.         4493.         2000.        0.091        0.080
           561.         4493.         2000.        0.035        0.037
           559.         4495.         2000.        0.173        0.152
           561.         4495.         2000.        0.273        0.283
           567.         4493.         4000.        0.261        0.030
           543.         4501.         4000.        0.046        0.040
           549.         4497.         2000.        0.133        0.108
           549.         4499.         2000.        0.053        0.045
           547.         4501.         2000.        0.018        0.015
           549.         4501.         2000.        0.043        0.040
           547.         4503.         2000.        0.075        0.067
           549.         4503.         2000.        0.096        0.095
           551.         4497.         4000.        0.342        0.274
           551.         4501.         4000.        0.178        0.148
           555.         4501.         4000.        0.360        0.344
           555.         4497.         2000.        0.080        0.064
           557.         4497.         2000.        0.133        0.132
           555.         4499.         2000.        0.124        0.104
           557.         4499.         2000.        0.157        0.130
           559.         4497.         2000.        0.138        0.112
           561.         4497.         2000.        0.197        0.164
           563.         4497.         2000.        0.126        0.120
           565.         4497.         2000.        0.154        0.133
           559.         4499.         2000.        0.152        0.134
           561.         4499.         2000.        0.183        0.151
           563.         4499.         2000.        0.216        0.190
           559.         4501.         2000.        0.162        0.142
           561.         4501.         2000.        0.199        0.170
           563.         4501.         2000.        0.235        0.199
           559.         4503.         2000.        0.143        0.134
           561.         4503.         2000.        0.145        0.126
           563.         4503.         2000.        0.143        0.139
           565.         4499.         1000.        0.062        0.061
           566.         4499.         1000.        0.056        0.055
           565.         4500.         1000.        0.081        0.082
           566.         4500.         1000.        0.095        0.090
           565.         4501.         1000.        0.121        0.118
           566.         4501.         1000.        0.074        0.073
           565.         4502.         1000.        0.082        0.077
           566.         4502.         1000.        0.079        0.072
           565.         4503.         1000.        0.035        0.035
           566.         4503.         1000.        0.076        0.076
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AREA SOURCE EMISSIONS FOR UNION         COUNTY 2000      PAGE   2
                X             Y           SIDE           SO2           TSP
              (KM)          (KM)          (M)           (T/D)         (T/D)
              565.          4504.        1000.          0.052         0.047
              566.          4504.        1000.          0.081         0.084
              567.          4497.        2000.          0.291         0.040
              569.          4499.        2000.          0.040         0.041
              569.          4501.        2000.          0.063         0.069
              571.          4501.        2000.          0.159         0.073
              569.          4503.        2000.          0.290         0.203
              571.          4503.        2000.          0.147         0.077
              567.          4499.        1000.          0.052         0.048
              568.          4499.        1000.          0.065         0.061
              567.          4500.        1000.          0.082         0.076
              568.          4500.        1000.          0.073         0.071
              567.          4501.        1000.          0.074         0.084
              568.          4501.        1000.          0.062         0.069
              567.          4502.        1000.          0.090         0.100
              568.          4502.        1000.          0.027         0.031
              567.          4503.        1000.          0.038         0.042
              568.          4503.        1000.          0.017         0.043
              567.          4504.        1000.          0.070         0.078
              568.          4504.        1000.          0.093         0.061
              547.          4505.        4000.          0.122         0.104
              555.          4505.        4000.          0.363         0.319
              551.          4509.        4000.          0.048         0.047
              551.          4505.        2000.          0.068         0.054
              553.          4505.        2000.          0.063         0.054
              551.          4507.        2000.          0.107         0.094
              553.          4507.        2000.          0.124         0.111
              559.          4505.        2000.          0.170         0.154
              561.          4505.        2000.          0.196         0.181
              559.          4507.        2000.          0.068         0.058
              561.          4507.        2000.          0.116         0.101
              563.          4505.        1000.          0.068         0.064
              564.          4505.        1000.          0.068         0.064
              565.          4505.        1000.          0.064         0.056
              566.          4505.        1000.          0.074         0.066
              563.          4506.        1000.          0.062         0.057
              564.          4506.        1000.          0.086         0.077
              565.          4506.        1000.          0.110         0.094
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